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Banks turn to pay-as-you-go IT

One year later, American Airlines [illegible] wireless LANs

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100 PREMIER IT LEADERS 2003

How will *Computerworld*'s Premier 100 IT Leaders make their mark in 2003? Facing yet another challenging year of tight budgets and industry uncertainty, this elite group of men and women takes charge of everything from vendor and project management to building business on the Web, improving core systems, connecting ever more closely with customers and investing IT dollars wisely. Inside, in our fourth annual issue honoring the Premier 100, you'll find their stories, their strategies and their best advice for IT success in this new year. **Stories begin on page 13.**

ONLINE EXCLUSIVE

Another class of Premier 100 IT Leaders joins our roster of top technologists in the fourth year of this awards program. View the names of all past honorees in our online honor roll:

Quicklink [illegible]

www.computerworld.com

A sampling of the stories inside:

- **Minimal risk and surefire payoff are key considerations for investing IT dollars this year.** PAGE 14
- **As the technology recession takes its toll on employee morale, IT leaders strive to keep valuable staffers focused and well informed.** PAGE 28
- **Striking better deals with IT suppliers is a new core competency requiring sharper negotiating skills.** PAGE 32

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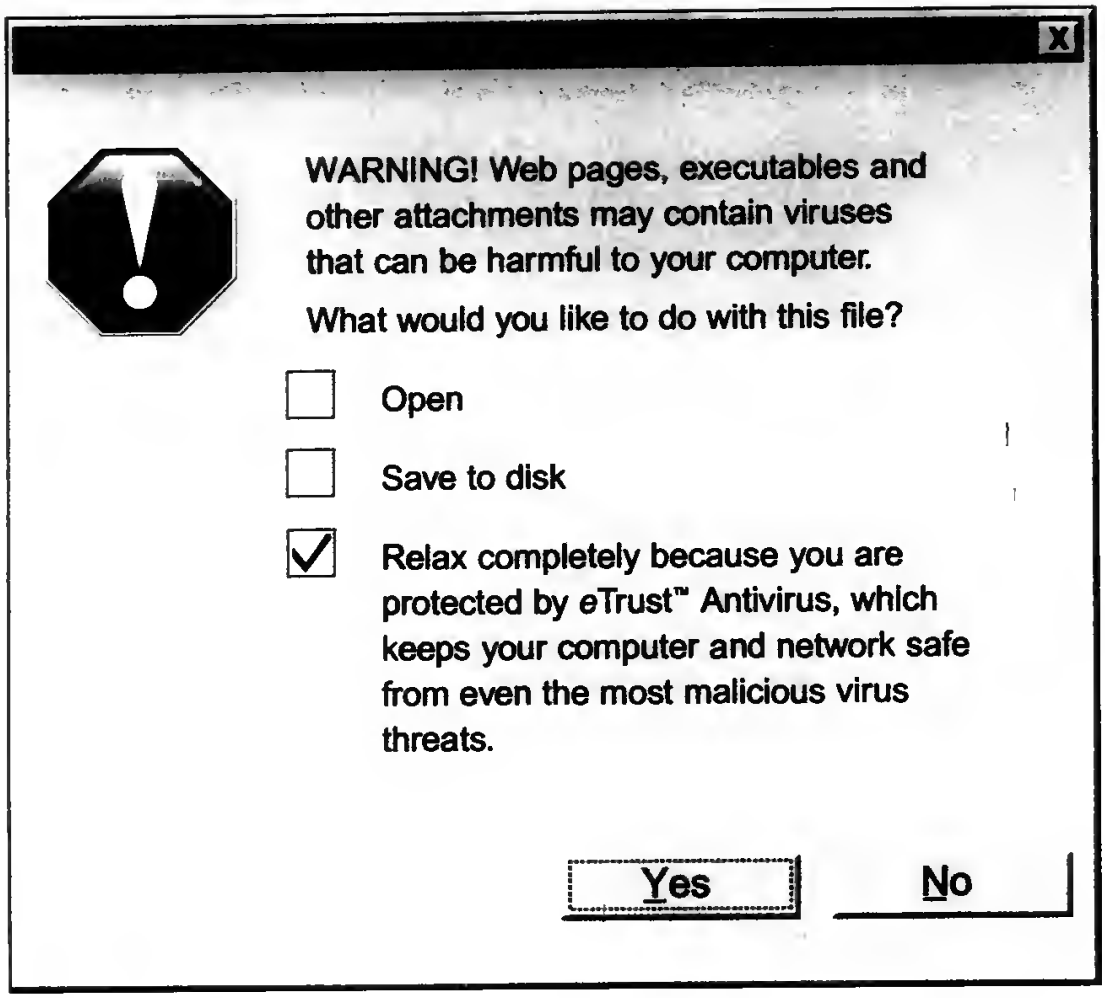
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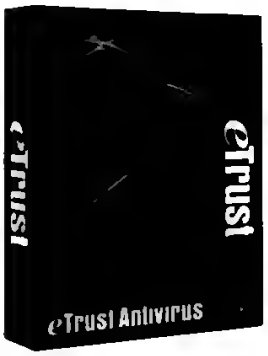

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On some pages in this issue, you'll see a QuickLink code pointing to additional, related content on our Web site. Just enter that code into our QuickLink box, which you'll see at the top of each page on our site.

The IT Leadership Agenda

PREMIER 100 IT LEADERS 2003

Which projects have made it onto the 2003 to-do lists of the top IT strategists? Find out right here in *Computerworld*'s annual Premier 100 IT Leaders special issue, which showcases the men and women driving change in the IT industry and gives a glimpse of their plans and strategies for 2003. Also, look for profiles of select honorees that highlight their career triumphs and challenges. **PACKAGE BEGINS ON PAGE 13.**

14 How Will You Invest Your IT Dollars? For this year's Premier 100 IT Leaders, technology spending in 2003 will depend heavily on industry and business needs. Read about how some will deal with budget cutbacks, set their priorities and decide which projects will get the precious few dollars they have to spend this year.

18 What Are Your Top Projects? We asked our Premier 100 IT Leaders which projects they plan to tackle in the year ahead and then talked with some who have survived similar projects. In a series of five concise case studies, we examine deployments of enterprise resource planning (*page 18*) and customer relationship management (*page 19*) software, as well as enterprise application integration projects (*page 20*), e-business initiatives (*page 21*) and major systems upgrades (*page 22*).

24 How Will You Secure Your Company Data? Whether balancing the needs of security with the push for greater access to data, coping with government mandates or planning for possible budget cuts, IT security managers have their hands full this year. **ONLINE:** Robert L. Otto, vice president of IT at the U.S. Postal Service, describes a three-year plan to secure the mail service's infrastructure.
QuickLink 34943

25 How Will You Optimize Your Infrastructure? IT departments are being asked to do more with less this year. Read how some IT leaders are coping with the recession by squeezing efficiencies from their existing technologies through hardware consolidation projects, performance monitoring and application tuning.

26 How Will You Prove IT Value? Our Premier 100 honorees didn't reach the top of their professions by being softies. A vast majority of them regularly rely upon hard-dollar metrics to demonstrate to top brass the business value IT investments are expected to yield.

28 How Will You Manage Your Labor Force? For some IT managers, the recession has offered up high-quality workers at bargain salaries. But for others, budget cuts and staffing reductions have stalled or stopped IT projects. Learn how these IT leaders are keeping their staffs informed and motivated in these lean times.

32 How Will You Manage Your Vendors? Today's IT leaders juggle many dozens of vendors, from commodity to strategic, products to services, internal to outsourced. Here's how some Premier 100 leaders are mastering this new core competency in IT.

34 How They Have Learned to Lead. Profiles of 10 IT leaders and the career challenges that helped them hone their leadership skills.

35 The 2003 Premier 100 IT Leaders. An alphabetical listing of this year's honorees. **ONLINE:** View the names of all past honorees in our Premier 100 honor roll.
QuickLink 32790

35 Leader's Almanac. IT Leaders candidly reveal the technology decisions they wouldn't make again and tell us about the jobs that launched their careers.

54 Opinion: This year, IT leadership isn't about achieving great things by marshaling all the resources at your disposal. It's about getting the job done, even without the resources you need, says columnist Frank Hayes.

AT DEADLINE

McDonald's Scraps Networking Plans

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But airport wireless networks still pose security dangers to corporate data

BY DAN VERTON

American Airlines Inc. has taken significant steps to secure wireless bag-matching and curbside check-in operations at Denver International Airport (DIA) that a year ago were found to be highly vulnerable to hackers.

But a test conducted Dec. 20 at the airport by White Hat Technologies Inc., a Westminster, Colo.-based security firm, found that corporate data is still vulnerable throughout airport waiting areas and airline lounges

Last January, *Computerworld* reported on a similar test conducted by White Hat that discovered American had been operating wireless LANs without any encryption in its section of the DIA terminal and had even pasted the IP addresses of curbside terminals on the monitors [QuickLink 26374].

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In addition, American had not only removed the IP addresses from its OneStop self-service kiosks, but it had also added Cisco Systems Inc.'s Lightweight Extensible Authentication Protocol (LEAP) authentication technology on top of the standard 40-bit Wired Equivalent Privacy (WEP) encryption.

LEAP is an authentication algorithm that leverages the 802.1x framework and provides dynamic, per-user WEP keys to protect data in transit.

Stacey Frantz, a spokeswoman for American, said the changes are the result of a recent re-evaluation of security for all of the airline's wireless curbside check-in and roving-agent systems.

Frantz confirmed that the security fixes are being made at airports nationwide. However, she was unable to elaborate on the status of those fixes at individual airports.

Ongoing Concerns

On the downside, Comerford said White Hat's test of the DIA facility still managed to pick up a suspected rogue access point (AP), as well as a significant number of vulnerable wireless transmissions emanating from public traveler lounges and frequent-flier clubs throughout the airport.

The public areas and most of the airport lounges use the public wireless network operated on behalf of the DIA by AT&T Wireless Services Inc. The American Airlines Admiral's Club lounge uses T-Mobile USA Inc.'s HotSpot public wireless network.

What Corporate Users Can Do

RESEARCH AIRLINES AND AIRPORTS that offer wireless LANs that support standard VPN software.

CONSIDER CORPORATE POLICIES on when, where and how mobile users can access public wireless networks.

RESEARCH OPTIONS FOR CENTRALIZED COMPUTING, such as X terminals that store sensitive data on corporate databases and not on laptops.

"The biggest danger at DIA is the sniffing of sensitive information being transmitted by travelers," said Comerford. "Few, if any, airports have addressed this security vulnerability, [and] few airports or airlines warn travelers of the danger of using the wireless networks."

In July, the city of Denver and DIA outsourced the airport's public wireless network, known as GoPort, to AT&T Wireless. AT&T Wireless' service includes 54 APs spread throughout the DIA terminal and three concourses.

Ritch Blasi, a spokesman for Redmond, Wash.-based AT&T Wireless, acknowledged that the suspected rogue AP found by White Hat didn't belong to AT&T's network. He also said AT&T encrypts all personal user information entered into the system during registration and log-on, including payment information. Any other security precautions are up to the individual user, he said.

Frank Ramirez, director of business products at Bellevue, Wash.-based T-Mobile, said his company is in the process of updating security for 2,000 sites across the country, including American's Admiral's Club at DIA.

In addition to allowing corporate users to take advantage of their own investments in virtual private network technologies while using the T-Mobile network, the company has implemented blocking technology at the AP level, Ramirez said. He explained that users register on the network and get a Medium Access Control address. T-Mobile can block any system that's not recognized.

"We've also implemented network address translation technology to shield the IP addresses of the machines on the network from potential intruders," Ramirez added.

Seth Kulakow, an enterprise security analyst at DIA, said he conducts routine scans looking for suspicious wireless activity throughout the airport and is currently investigating White Hat's discovery of the non-AT&T AP.

Kulakow also acknowledged the need for airports and airlines to post warnings to users about the inherent risks of using public wireless networks. "The airlines should have something like that posted, but they don't," he said.

AT&T Wireless Slows Plan to Build Third-Generation Cellular Network

AT&T Wireless Services is delaying and scaling back its planned U.S. rollout of a high-speed cellular network based on technology developed by NTT DoCoMo Inc. But AT&T Wireless has plenty of reasons – 6 billion of them, in fact – to meet the revised rollout schedule.

The two companies on Dec. 20 announced a deal to push back the initial launch of third-generation (3G) wireless services built around NTT DoCoMo's Wideband Code Division Multiple Access (W-CDMA) technology from June 2004 to December of that year. In addition, the number of cities in the start-up plan was downsized from 10 to four: San Francisco, San Diego, Seattle and Dallas.

As part of the revised deal, AT&T Wireless could be forced to pay Tokyo-based NTT DoCoMo as much as $6 billion, plus interest, if it fails to make the W-CDMA service available at a total of 1,000 cell sites in the four cities by the end of 2004.

The $6 billion represents the price that NTT DoCoMo paid for a 16% stake in AT&T Wireless in November 2000, according to a filing about the new rollout plan that AT&T Wireless has submitted to the U.S. Securities and Exchange Commission.

Alternatively, the filing said, NTT DoCoMo could sell its 474.7 million shares on the open market, with AT&T Wireless making up any difference between the proceeds of the stock sale and the original investment.

David Cacouris, a spokesman for AT&T Wireless, said the changes in the rollout plan resulted from a decision by the company "to meet market demands while at the same time making the most prudent use of our capital."

The company chose the four cities for the W-CDMA rollout because of the high concentration of mobile professionals in those markets, Cacouris said. The W-CDMA technology supports data rates of up to 2M bit/sec., compared with top speeds of 40K bit/sec. on AT&T Wireless' existing General Packet Radio Service network.

But Alan Reiter, an analyst at Wireless Internet & Mobile Computing in Chevy Chase, Md., said the 3G technology has had teething problems in Japan, including handsets with poor battery life and weak demand from users. Given those issues, the revised agreement with NTT DoCoMo leaves AT&T Wireless in an "awkward" financial position, Reiter said. He estimated that it could cost AT&T Wireless a total of $500 million to set up the 1,000 W-CDMA cell sites required by the deal.

Cacouris acknowledged that AT&T Wireless could be liable for the total stock purchase price paid by NTT DoCoMo if the U.S. rollout goes awry. A stock sale by NTT DoCoMo is a more likely scenario, he said. But AT&T Wireless officials doubt that either event will be necessary, he added. "We are thoroughly committed to W-CDMA," Cacouris said.

Ritch Blasi, another AT&T Wireless spokesman, said the company expects the battery problems and other issues facing W-CDMA to be resolved by 2004. He called Reiter's rollout cost estimate high but declined to disclose AT&T Wireless' budget for the project.

–*Bob Brewin*

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Data Security and App Development Are Still In-house Priorities for Banks

Michael Sztejnberg, managing director of J.P. Morgan Chase's Enterprise Technology Services Group, said concerns about the privacy and security of financial data are increasing on a year-to-year basis. But the bank's new outsourcing deal with IBM should help ease some of those concerns, he said.

For example, IBM can upgrade J.P. Morgan's systems to state-of-the-art server and storage technologies more quickly than the bank could on its own, Sztejnberg said. On the other hand, he added that J.P. Morgan plans to keep "a significant amount of control and influence over the things that we feel we need to, including security."

And the bank isn't letting go of key IT functions such as architecture planning, application development or the deployment of online banking, electronic check-processing and other technology-driven banking services, he said.

Sztejnberg said he looks at IT in layers, with the basic delivery of system resources to business units being at the bottom in corporate value. "We've retained a lot of the top layers of that stack," he said, noting that none of J.P. Morgan's IT architects or application developers will be shifted to IBM.

IBM's ability to help Deutsche Bank meet regulatory requirements for data security was a big factor in favor of outsourcing, said bank spokesman Klaus Thoma. For example, IBM will use data-mirroring technology to back up the bank's information.

"There is more technical expertise on the side of the outsourcing companies these days," he said. But Deutsche Bank will still be responsible for maintaining the security of data, he added. "The real differentiator is that you're dividing the hardware side from the development side," Thoma said.

– *Lucas Mearian*

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WIRELESS

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What Corporate Users Can Do

RESEARCH AIRLINES AND AIRPORTS that offer wireless LANs that support standard VPN software.

CONSIDER CORPORATE POLICIES on when, where and how mobile users can access public wireless networks.

RESEARCH OPTIONS FOR CENTRALIZED COMPUTING, such as X terminals that store sensitive data on corporate databases and not on laptops.

AT&T Wireless Slows Plan to Build Third-Generation Cellular Network

AT&T Wireless Services is delaying and scaling back its planned U.S. rollout of a high-speed cellular network based on technology developed by NTT DoCoMo Inc. But AT&T Wireless has plenty of reasons – 6 billion of them, in fact – to meet the revised rollout schedule.

The two companies on Dec. 26 announced a deal to push back the initial launch of third-generation (3G) wireless services built around NTT DoCoMo's Wideband Code Division Multiple Access (W-CDMA) technology from June 2004 to December of that year. In addition, the number of cities in the start-up plan was downsized from 13 to four: San Francisco, San Diego, Seattle and Dallas.

As part of the revised deal, AT&T Wireless could be forced to pay Tokyo-based NTT DoCoMo as much as $6 billion, plus interest, if it fails to make the W-CDMA service available at a total of 1,000 cell sites in the four cities by the end of 2004.

The $6 billion represents the price that NTT DoCoMo paid for a 16% stake in AT&T Wireless in November 2000, according to a filing about the new rollout plan that AT&T Wireless has submitted to the U.S. Securities and Exchange Commission.

Alternatively, the filing said, NTT DoCoMo could sell its 474.7 million shares on the open market, with AT&T Wireless making up any difference between the proceeds of the stock sale and the original investment.

David Caouette, a spokesman for AT&T Wireless, said the changes in the rollout plan resulted from a decision by the company "to meet market demands while at the same time making the most prudent use of our capital."

The company chose the four cities for the W-CDMA rollout because of the high concentration of mobile professionals in those markets, Caouette said. The W-CDMA technology supports data rates of up to 2M bit/sec., compared with top speeds of 40K bit/sec. on AT&T Wireless' existing General Packet Radio Service network.

But Alan Reiter, an analyst at Wireless Internet & Mobile Computing in Chevy Chase, Md., said the 3G technology has had teething problems in Japan, including handsets with poor battery life and weak demand from users. Given those issues, the revised agreement with NTT DoCoMo leaves AT&T Wireless in an "awkward" financial position, Reiter said. He estimated that it could cost AT&T Wireless a total of $500 million to set up the 1,000 W-CDMA cell sites required by the deal.

Caouette acknowledged that AT&T Wireless could be liable for the total stock purchase price paid by NTT DoCoMo if the U.S. rollout goes awry. A stock sale by NTT DoCoMo is a more likely scenario, he said. But AT&T Wireless officials doubt that either event will be necessary, he added. "We are thoroughly committed to W-CDMA," Caouette said.

Ritch Blasi, another AT&T Wireless spokesman, said the company expects the battery problems and other issues facing W-CDMA to be resolved by 2004. He called Reiter's rollout cost estimate high but declined to disclose AT&T Wireless' budget for the project.

– *Bob Brewin*

Java Developers Laud Ruling

Microsoft must include up-to-date Java in Windows

BY PATRICK THIBODEAU
WASHINGTON

A U.S. DISTRICT COURT judge's plan to force Microsoft Corp. to ship the most recent version of Java software with Windows desktop operating systems may revive Java development and help rival Sun Microsystems Inc. battle .Net.

That's how some Java developers, corporate IT executives and analysts see the impact of a pending action by U.S. District Court Judge J. Frederick Motz in Baltimore in the private antitrust case between Sun and Microsoft.

Java and the .Net framework are Internet-enabled distributed computing platforms that compete head-to-head. Motz, in an opinion released just before Christmas, said he doesn't want the antitrust violations of which Microsoft was found guilty in the recently settled federal case to help it defeat the Java platform.

The judge said he wants to ensure that Java gets a fair shake in the platform war by requiring Microsoft to ship up-to-date versions of Java. He is expected to issue his "must-carry" order within the next two weeks.

Having that Java desktop availability "removes a lot of the stress of competing with the .Net framework," said Jason Norman, who works with Java as a health systems software engineer at Vanderbilt University Medical Center in Nashville. "But it's not going to be a decisive thing either way. It does not mean that Java is going to dominate, because Java has its own set of challenges."

One such challenge is Swing, Sun's tool for creating interfaces, which Norman said is slow and difficult to work with.

But Andre Mendes, chief technology integration officer at the Public Broadcasting Service in Alexandria, Va., said IT departments have already decided the issue by not downloading and upgrading the desktop Java virtual machine (JVM).

"There has not been a clear mandate from the masses out there to have [Java] included as part of the operating system," said Mendes. He said that having to upgrade Java on their systems has never been an obstacle for companies that want to adopt the platform.

Raising Objections

Microsoft officials said their reasons for opposing the must-carry rule were outlined in legal briefs. Among the problems the company cited are potentially jeopardized Windows shipping dates and a lack of limitations on what Sun could put in its runtime environment. It could also hurt the quality and security of Windows releases, among other problems, according to Microsoft.

Microsoft currently ships a version of the JVM that's at least five years old. Developers have to either ensure that clients have the latest JVM, limit features to those supported by the earlier version or simply serve up HTML.

"If the JVM did become standard on every desktop, it could open the door for really, really rich clients," said Scott Davis, head of the Denver Java Users Group and a consultant at Kres Consulting in Englewood, Colo.

Java user group officials in Seattle, Atlanta and Cleveland who were interviewed for this story echoed Davis' point.

The "quality of Web applications will increase, as developers will be able to make use of the latest Java advances from within the browser," said Jayson Raymond, chairman of the Seattle Java Users Group and CEO and chief technology officer at Accelerant Mobile Corp., a Java development firm in Issaquah, Wash.

IDC analyst Rikki Kirzner called the ruling "extraordinarily important" for Java. "What this ruling does is force Microsoft to support Java, which makes the burden much easier on the development community," she said.

Judge's View

According to U.S. District Judge J. Frederick Motz:

- Java and .Net are direct competitors. If Microsoft isn't forced to carry Java, that battle could tip in Microsoft's favor.
- It's surprising that no other Sun competitors opposed the "must-carry" injunction. "Their silence speaks volumes," the judge wrote.
- If .Net dominates the market, it should be because of its superior qualities, not because Microsoft leveraged its PC monopoly.

Sun Exec: Ruling Will Boost Java

Sun Microsystems' top Java executive contends that the federal court's impending "must-carry" decision will aid corporate developers by assuring Java's ubiquitous distribution. In an interview with *Computerworld*'s Patrick Thibodeau, **Richard Green**, Sun's vice president and general manager for Java and XML, discussed the ruling's potential impact.

How has Java been affected by Microsoft's decision not to ship the latest version with its desktop operating system? Microsoft owns the principal distribution channels to the desktop. When they focus their energies on distributing an out-of-date version, they dilute the efforts of developers to create new applications by convincing them that this is not something that they should be using. The effect has been to freeze or delay development of really interesting state-of-the-art network applications based on Java for the desktop.

What would a must-carry order accomplish for Java? The ruling ensures that the volume for this development platform will be greater than any other platform in the world, because it will be the sum of Unix, plus Linux, plus handhelds, plus servers. This will be the largest-volume development platform shipping worldwide.

This ruling is limited to desktops. Will it affect other systems? If you have a consistent set of APIs and programming models across all your systems, as a developer you can be more productive. So although these injunctions do not bear directly on platforms other than the desktops, for developers and end users it will offer ease of development and consistency.

How does this help you compete against .Net? The killer feature to date that .Net has over Java is not technology. It's not marketing; it's not tools. It's distribution. It's the ability of developers to count on it being present when they deploy their applications. That is the .Net advantage, and this injunction cancels that out.

If Microsoft succeeds in reversing this injunction on appeal, will Java be crippled? Java will go on as it has been: successful in the enterprise, on servers, on handhelds. But not as successful as we would like, by any means, as a desktop development platform.

Microsoft Launches U.S. Smartphone Push

BY BOB BREWIN

Microsoft Corp. today plans to kick off a push into the U.S. market for software-equipped mobile phones, in a bid to eliminate a head start by similar devices that run PalmSource Inc.'s rival operating system.

Microsoft and two hardware partners will announce cell phones that use its Smartphone technology and are equipped to run on cellular networks operated by carriers such as Sprint PCS Group and Verizon Wireless. The U.S. rollout follows the October introduction of a Smartphone device by London-based Orange SA.

Orange's hardware operates on networks that support the Global System for Mobile Communications standard. In contrast, Microsoft officials said the phones being offered in the U.S. by Samsung Electronics Co. and Hitachi Ltd. were designed for use on networks built around Code Division Multiple Access (CDMA) technology.

The Smartphone software offers much of the same functionality as Microsoft's Pocket PC operating system for handheld devices, minus support for Excel and PowerPoint. Ed Suwanjindar, manager of mobile product devices at Microsoft, said the company is also adding built-in CDMA books to make it easier for phone makers and network operators to develop Smartphone hardware and services.

SMARTPHONE SUIT

A British maker of mobile phones is suing Microsoft after the collapse of a Smartphone-related partnership

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BRIEFS

Sybase Combines Software Divisions

Sybase Inc. said it has set up an operating unit that combines its business intelligence, e-business and data management software divisions into a single group. The Dublin, Calif.-based company hired Thomas Volk, former vice president and general manager of Hewlett-Packard Co.'s manufacturing industry business unit, to run the new Infrastructure Platform Group.

ACS Wins IT Deal With Ingram Micro

Dallas-based Affiliated Computer Services Inc. (ACS) announced a deal to take over IT infrastructure management at Ingram Micro Inc., a computer products distributor in Santa Ana, Calif. About 200 IT workers will be transferred to ACS as part of the deal, which covers Ingram Micro's systems and networks, plus its internal help desk operations.

Ariba to Restate Fiscal 2001 Results

Sunnyvale, Calif.-based Ariba Inc. said it will restate its financial results for the fiscal year that ended in September 2001 to account for a $10 million payment made that year to an executive who no longer works for the company. Ariba, which makes online procurement software, noted that it's reviewing benefits given to "a limited number" of employees during fiscal years 2000 and 2001.

Short Takes

IBM and HITACHI LTD. completed a deal in which Tokyo-based Hitachi bought majority ownership of IBM's disk drive unit, which will be part of a new company called Hitachi Global Storage Technologies. . . . Seattle-based CRAY INC. said it has shipped the first production version of its Cray X1 supercomputer.

Cyberthreats Not to Be Dismissed, Warns Clarke

Says vulnerabilities still 'underappreciated' as threat to nation's critical infrastructure

BY DAN VERTON

THE U.S. has ignored warning signs before: two attempts by al-Qaeda in 1994 to use airplanes as weapons, as well as public statements in 2000 about terrorists being trained as pilots.

Now Richard Clarke, chairman of the President's Critical Infrastructure Protection Board, is trying to prevent new warning signs from being ignored — signs that al-Qaeda's brand of terrorism has a growing cyber elemeot and that the nation's economy is at risk.

Before taking up his current post in October 2001, Clarke advised two presidents oo cybersecurity and served as the country's first counterterrorism coordinator. Most of his time now is spent raising awareness of the changing nature of terrorism and the increasing relevance of cyberterrorism to the stated goals of groups such as al-Qaeda.

"Cyberspace still is underappreciated as a threat, and the solutions aren't as obvious as they are with physical security," said Clarke during an exclusive interview with *Computerworld* Dec. 20. "We have no clue as a country how to protect our cyberspace. It is a totally different kind of issue."

Unknown Security Holes

Clarke said vulnerabilities in the nation's critical infrastructure stem mainly from unknown security holes in widely deployed software and from the constant influx of new technologies that often have unintended consequences for security.

One of his biggest concerns is the growing use of wireless technologies, he said. There have already been cases in Spain and Japan in which PC-based worms have infected hundreds of next-generation cell phones, tricking them into dialing local 911 emergency systems, Clarke added.

"Now, if you're a terrorist, the first thing you might want to do before an attack is take down the 911 system," he said.

According to Clarke, the Sept. 11 terrorist attacks were a turning point for the national effort to protect cyberspace.

"Before Sept. 11, [al-Qaeda] was interested in killing as many people as possible," he said. "After Sept. 11, [Osama bin Laden] starts talking about destroying the American economy. And he starts to talk about going after the economic infrastructure of the United States. You could drive around a lot of truck bombs and really oot do a lot of damage to the economic infrastructure because it's so diverse and dispersed. But if you do it in cyberspace, you might have the ability to hit the entire financial services network simultaneously."

> We have no clue as a country how to protect our cyberspace. It is a totally different kind of issue.
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> **RICHARD CLARKE**, CHAIRMAN CRITICAL INFRASTRUCTURE PROTECTION BOARD

Clarke said he's aware that many people doubt the willingness and ability of terrorist organizations to carry out strategic cyberattacks against the U.S. But he said it's his job to think differently about the future — and to do what some officials failed to do in the months leading up to Sept. 11.

A Lot of Threats

"There are a lot of different people who can conduct cyberwarfare," Clarke said. "There are countries that are creating cyberwarfare units. There are criminal groups engaging in cybercrime. There are also some terrorist groups we know are looking at using cyberattack tools. But I doo't spend a lot of time trying to figure out who's going to be the next attacker."

Eliminating al-Qaeda, for example, "woo't end the threat to us from cyberspace," he said.

And therein lies the challenge, according to Clarke. The U.S. needs to take the target of cyberspace away from its enemies by eliminating vulnerabilities, he said. ◗

An Ongoing Debate

A research paper released last month by the Center for Strategic & International Studies (CSIS), a Washington-based think tank, argues that computer networks and critical infrastructures are distinct entities and that the threat from cyberterrorism is far less serious than the government and the media contend.

"The assumption of vulnerability is wrong," argues James A. Lewis, a CSIS analyst and author of "Assessing the Risks of Cyber Terrorism, Cyber War and Other Cyber Threats."

"While many computer networks remain very vulnerable to attack, few critical infrastructures are equally vulnerable," according to Lewis. "Computer network vulnerabilities are an increasingly serious business problem, but their threat to national security is overstated."

But Lewis offers few examples and technical details to support his claims, which stand in stark contrast to much of the new thinking by high-level national security experts on the issue of critical infrastructure protection and cybersecurity.

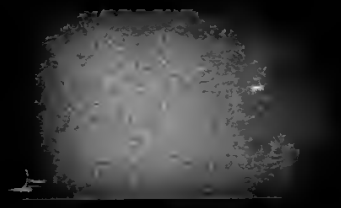
In a recent interview with *Computerworld*, for example, Brenton Greene, deputy director of the National Communications System, an executive-branch agency responsible for maintaining and restoring communications during times of national crisis, said the physical and cyber aspects of critical infrastructure protection can't be separated. Major physical events will have digital ramifications and vice versa, said Greene.

That's also the conclusion of the recently released annual report of the Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction, led by former Virginia Gov. James S. Gilmore. "Cyberspace has been isolated and specialized, thus limiting its perceived relevance to day-to-day outcomes and even its relevance to what are viewed as clear and present homeland security threats," the commission stated.

In an interview, Gilmore said the commission's studies show that cyberterrorism is a clear and present danger to critical infrastructure.

"The information technology, Internet and computer world that we now live in is vulnerable, and it must be analyzed together with other physical parts of critical infrastructure in order to protect the nation," he said.

– *Dan Verton*



The five business intelligence questions that Business Objects doesn't want you to ask.

U.S. Tries to Restrict 5-GHz Wireless LANs

Worried about interference with military radar

BY BOB BREWIN

The U.S. Department of Defense is seeking to restrict the use of wireless LANs in the lower portion of the 5-GHz frequency band because of concerns about possible interference with military radar.

Portions of the 5-GHz band have already been assigned for unlicensed WLAN use in the U.S., Europe and Japan. But in a draft position paper submitted to the International Telecommunication Union (ITU), the U.S. government said it wants the 5-GHz band protected for radar systems that can pick "smaller and less reflective targets out of background clutter."

That phrase refers to small boats or planes that terrorists could use to attack U.S. forces, said John Pike, a defense analyst at GlobalSecurity.org in Washington. He added that the Defense Department is also concerned about its ability to detect stealth aircraft that can hide from most conventional radar systems.

High Stakes

Badri Younes, director of spectrum management at the Pentagon, acknowledged that the war on terrorism has raised the stakes for radar operations. Attackers "could be coming from anywhere," Younes said, adding that the military has to be able to ensure that its radar systems can work without interference from WLANs.

The government's position paper was prepared for a meeting of the ITU in Geneva on Nov. 11. The ITU, the United Nations body that oversees spectrum allocations worldwide, plans to decide on the 5-GHz matter and other issues at its quadrennial World Radio Conference (WRC) in Geneva in June.

In the draft proposal, a copy of which was obtained by *Computerworld*, the U.S. said it wants to restrict the use of Wi-Fi WLAN technology between 5.150 and 5.350 GHz. The government called for radar systems operating in that band to be protected by a technique known as dynamic frequency selection (DFS), which would shut down WLAN transmissions if a radar signal was detected.

Bill Calder, a spokesman for Intel Corp., declined to specify the DFS restrictions being sought by the Pentagon. But he said that IT vendors view them as too conservative and are trying to reach a compromise with the government before the WRC meeting.

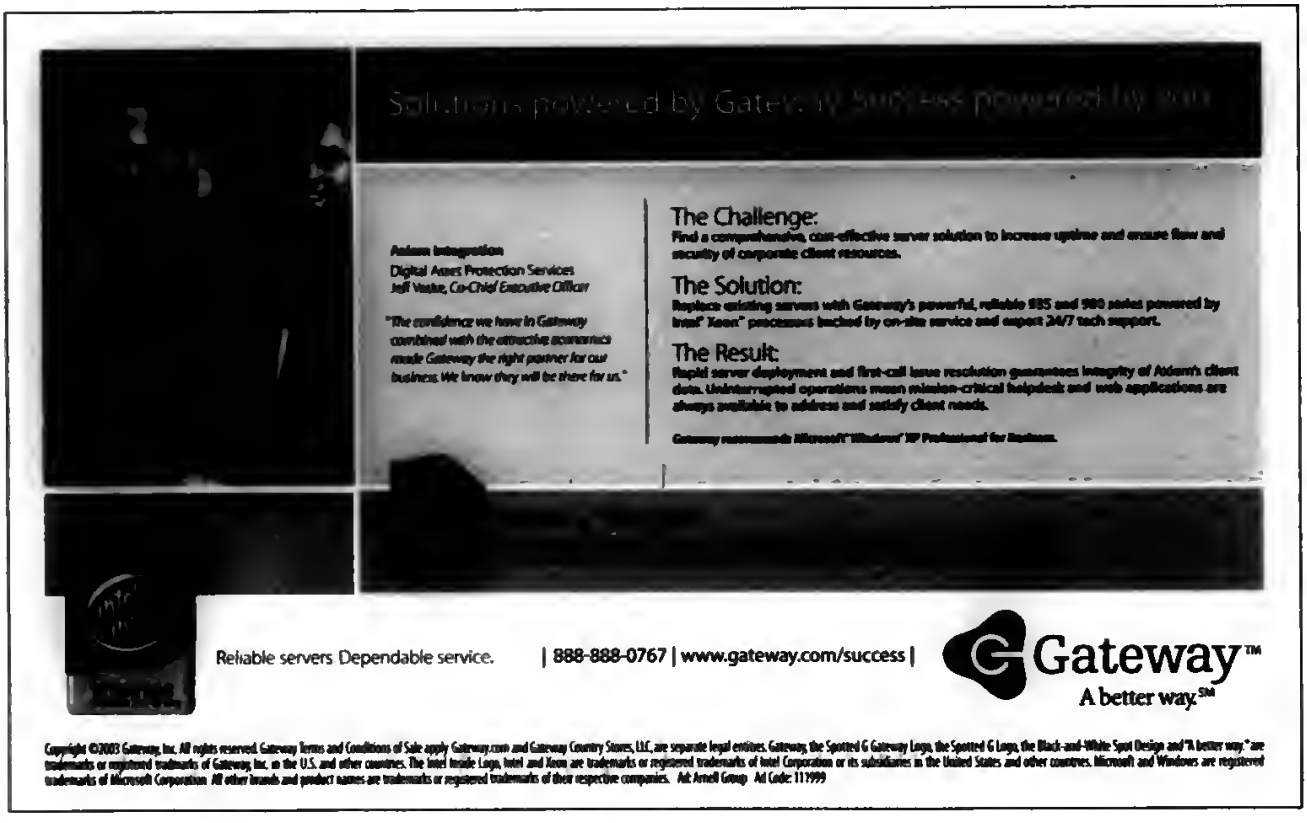
"We do not want to see that low band unduly restricted," Calder said.

Younes said Pentagon officials are willing to work with companies to devise a proposal that supports national security interests and the needs of WLAN vendors and users.

But Rich Redelfs, president and CEO of Atheros Communications Inc., a Sunnyvale, Calif.-based maker of chip sets for 5-GHz WLANs, described the attempt to limit use of the technology as "trying to put the genie back in the bottle."

Clyde Ensslin, a spokesman for the National Telecommunications and Information Administration, a division of the U.S. Department of Commerce, said the draft proposal represents the views of all federal agencies, including the Federal Communications Commission.

The radar section pertains to both military and commercial radars, including advanced systems that commercial pilots could use to detect small planes, Ensslin said.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MARYFRAN JOHNSON

Real-Time IT Leadership

I JUST SEARCHED FOR THE PHRASE "real-time IT leadership" on Google and came up with a big fat goose egg. Zip. Nada. No documents found. That led me to ask one of those tree-falling-in-the-forest questions: If it can't be Googled, does it really exist?

Damn right it does. And I submit as Exhibit A this issue of *Computerworld*, which is devoted to our Premier 100 IT Leaders for 2003. Real-time IT leadership is what the Premier 100s are all about. They show it on the job every day, across every industry. They use it to get projects done, budgets balanced, old applications integrated, new systems stabilized and customer issues resolved. They leverage it to keep businesses moving forward despite the drag of this drawn-out recession.

This is our fourth year of identifying and honoring the men and women who drive the IT leadership agenda. We built our stories this time on a series of tough questions, which the Premier 100s answer in detail throughout this issue. How are they managing vendors and suppliers? Automating and integrating technology with the enterprise? Connecting with customers?

But like real life, this issue isn't just a string of success stories. The Premier 100s also talk about their worst decisions and what they learned from them. One CIO regrets deploying a debit card system for international travelers that foundered on technology complications in Europe, and another rues the day she signed an enterprise software agreement that locked her company into lousy products.

Their challenges — and the myriad ways they handle them — will ring familiar bells with you. For starters, they watch the bottom line constantly and in concert with the business side.

"My CFO can make a vendor cry and a nickel scream," quips Henry Volkman, CIO at Del Taco. He's in the midst of upgrading 254 point-of-sale systems for the fast food chain, and he meets every week with his top financial executive to keep that real-time information flowing.

For Jerry McElhatton, senior executive vice president of global technology and operations at MasterCard International, real-time IT leadership means paying "exceptional attention to detail" while still giving his IT staff the latitude to make decisions. "You monitor the metrics and make sure you stay on track," he says.

Staying on track often hinges on the level of commitment IT leaders extract from their vendors. "Michael Dell promised me face to face it would work," says Damien Bean, vice president of corporate systems at Hilton Hotels, referring to the successful platform change involved in an ERP project.

Yet often, real-time IT leadership is as much about listening to customers and end users as it is about technology savvy or management skills. At Six Continents Hotels, CIO W. Douglas Lewis kept that in mind while revamping the central reservation system for 3,200 hotels. "Involving the people who leave fingerprints on the keyboards is critical, because they know what the hotels need," Lewis says. "If we approached this from an IT point of view, it's likely we would have built the wrong solution."

That last comment neatly sums up the balanced, open-minded, analytical worldview our Premier 100 IT Leaders bring to their work. I hope you'll enjoy reading their stories as much as we enjoyed writing them. ▶

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Staying on track often hinges on the level of commitment IT leaders extract from their vendors. "Michael Dell promised me face to face it would work," says Damien Bean, vice president of corporate systems at Hilton Hotels, referring to the successful platform change involved in an ERP project.

Yet often, real-time IT leadership is as much about listening to customers and end users as it is about technology savvy or management skills. At Six Continents Hotels, CIO W. Douglas Lewis kept that in mind while revamping the central reservation system for 3,200 hotels. "Involving the people who leave fingerprints on the keyboards is critical, because they know what the hotels need," Lewis says. "If we approached this from an IT point of view, it's likely we would have built the wrong solution."

That last comment neatly sums up the balanced, open-minded, analytical worldview our Premier 100 IT Leaders bring to their work. I hope you'll enjoy reading their stories as much as we enjoyed writing them. ▶

PREMIER 100 IT LEADERS 2003

Learn From The Best

THINK OF THEM AS YOUR VERY own panel of business-savvy, technology-smart consultants. They offer advice, instruct you on how to perform better and warn you of hidden traps, all at no charge.

They are this year's Premier 100 IT Leaders, and they have a few stories to tell. Today more than ever before, flat budgets and a desperate need to cut costs are challenging these technologists to develop IT innovations, prop up sagging staff morale and improve productivity. They are unique because their skilled leadership has placed them at the top of the corporate ladder. What's more, they remain at the top of their games as they refuse to let a shaky economy slow their drives to use technology as a tool that accomplishes extraordinary things.

For the past four years, *Computerworld* has set out to identify each year's top 100 IT executives. The goal: to recognize men and women who are leading change in their companies and their industries through technology. Each spring, we put out a call for nominations. This year, as in the past, we were buoyed by the response. We received more than 600 nominations of IT executives across a wide variety of industries. After surveying those nominees on topics ranging from management styles to project successes, we looked to *Computerworld*'s Leadership Index – a list of attributes found in IT leaders – and then evaluated the surveys and selected the year's 100 honorees.

The information we received from the honorees' surveys is a treasure trove of tips and tactics about how to be an IT leader in these trying times. These IT executives talk about their career triumphs, their challenges, even the decisions they regret making. They describe their priorities for the year ahead, identify the projects they plan to work on, and discuss their strategies for managing staffs and vendors.

Their challenges for the coming year map well to what many of you are facing in 2003. They're being asked to do more IT projects with less money, prove value to their executive boards for each and every project they undertake, optimize their existing technology infrastructures and secure corporate data. Sound familiar?

We think you'll find their stories valuable. In fact, the following pages may help you develop your own agenda for the coming year. With any luck, the knowledge and experience of this elite corps of IT strategists will help you avoid pitfalls you might otherwise stumble upon in 2003.

– *Ellen Messmer, special projects editor*

HOW WILL YOU Invest Your IT Dollars?

There's precious little money for IT investments this year, but the cash Premier 100 leaders do have to spend will go toward projects with minimal risk and surefire payoff. By Steve Ulfelder

THE YEAR IS BRAND NEW, but the budget challenges are old news: very little money to spend and plenty of projects competing.

Among this year's Premier 100 IT Leaders, spending plans vary widely. As expected, some IT shops face budget cuts driven by lower-than-anticipated revenue. Even many CIOs in healthy industries will rein in spending voluntarily as a preemptive defense against a possible slowdown. Still others are already accustomed to spending less than 1% of revenue on IT — a tight budget to begin with. Perhaps most surprisingly, at least one past Premier 100 IT Leader is increasing his IT spending by 25%.

In other words, technology spending in 2003 will depend heavily on industry and business needs. Some of the Premier 100 leaders will invest to meet federal regulations; others will double their IT training budgets because they have recently rolled out several applications. Many enterprises, having spent years trying to increase revenue through customer-facing technology initiatives, will turn their focus inward, where returns are more assured.

There's a common thread among this year's IT leaders, however. In forward-thinking enterprises, technology spending is now clearly and closely tied to corporate strategy.

It's a perennial challenge: In a recent Gartner Inc. survey of 1,500 CIOs, "strategizing for IT/business linkage" was listed as the No. 1 IT management priority, and it has topped other surveys for a decade or more. In leading organizations, IT is no longer viewed as a wild card or black box; its budget is scrutinized by an executive committee. Projects that get the green light are expected to produce results.

Taking a Deep Breath

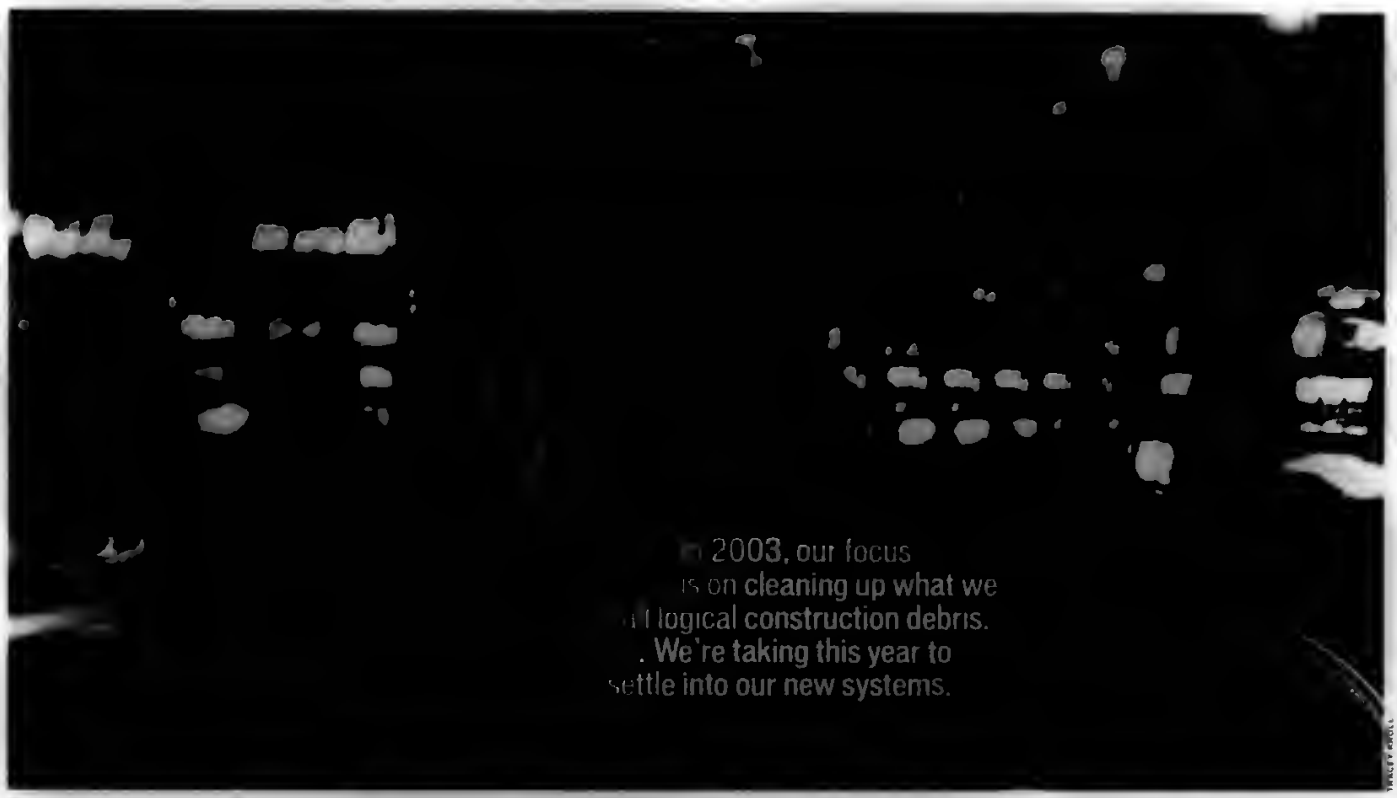
Daniel W. Garrow, senior vice president of information systems and CIO at Mohegan Sun Casino in Uncasville, Conn., has spent the past two and a half years presiding over a $1 billion property expansion and simultaneous infrastructure upgrade. He plans to focus on fine-tuning a host of new systems and applications. "We completely redid our network," he says, which included bringing broadband Internet connections to a new 1,200-room hotel for the $787 million casino operation.

"A lot of the infrastructure expenses are behind us," Garrow says. "In 2003, our focus is on cleaning up what we call logical construction debris. There are loose ends to tie up, interfaces that need to be tweaked. . . . We're taking this year to settle into our new systems."

Among those loose ends is Mohegan Sun's first suite of hotel management software from Lawrenceville, Ga.-based Inter-American Data. The hotel has Inter-American's Lodging Management System 1.5 up and running, but Garrow is still fine-tuning the system and integrating it with a proprietary Mohegan Sun loyalty-card program that lets guests earn points when they gamble and then redeem them anywhere on casino property.

Even businesses with improving market shares, outstanding brand recognition and sound business plans have been affected by the slow economy, and Premier 100 leaders are adjusting accordingly.

"The North American region is targeted to deliver operating income at near double-digit growth rates in an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industry that's growing at only 3%, so we want to leverage every dollar spent on technology," says Doug Watson, a vice president and director of IT for the Americas at Miami-based distiller Bacardi USA. "We have an IT governance model in place that ensures we're spending dollars that directly tie back to our strategic drivers."

As a result, Watson will spend heavily this year on a program that rationalizes Bacardi's supply chain software. The company long ago standardized on tools from Denver-based J.D. Edwards & Co., but its four implementations — one in Jacksonville, Fla., two in Puerto Rico and one in Miami — "grew up separately" and use different data models that make information-sharing difficult, Watson says. Driven by business pressures, his IT team will create a single data model this year aimed at "complete data transparency" that spans the company's supply chain across geographic regions, he says.

Like Watson, Premier 100 IT Leader Linda Roubinek is focused on helping her company achieve its strategic goals. As systems officer at Nationwide Mutual Insurance Co., Roubinek was instrumental in realigning the Columbus, Ohio-based company's IT spending model. Last year, Nationwide launched a group of cross-functional strategy and technology councils that are in charge of setting the company's IT agenda and making sure all major projects contribute to that agenda.

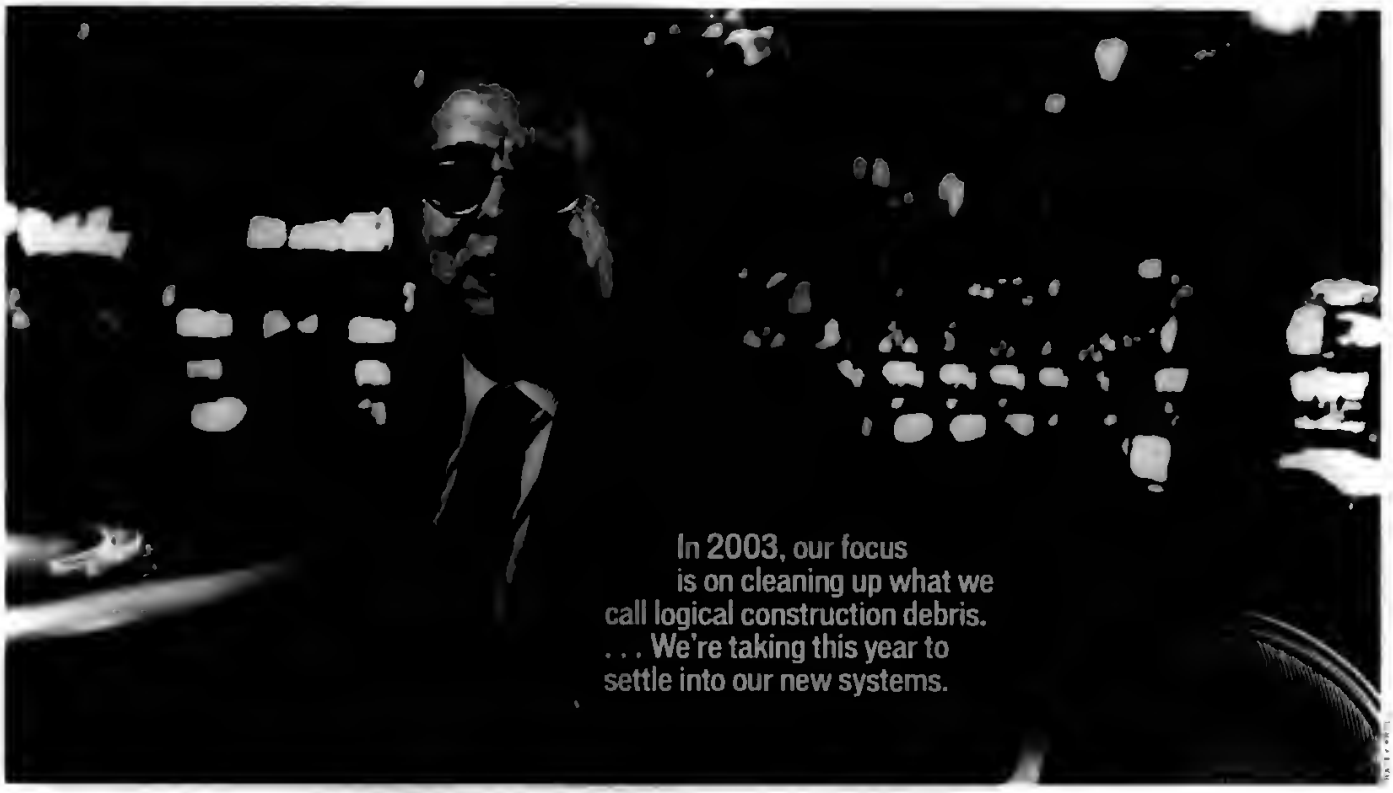
As a result of council decisions, Roubinek will focus this year on creating Web-enabled tools for Nationwide's agents. "We've invested in CRM in the past," she says, "but we're doubling that investment in 2003." The goal is to speed time to market for new rates and regulatory changes. That's a stiff challenge, in part because Nationwide does business in 46 states, each of which has its own insurance commission that must approve proposed offerings. Nationwide spent much of 2002 holding focus groups for insurance agents, and it's now ready to create the proprietary tool.

Inside the Firewall

It's appealing to spend money on customer- and partner-facing systems that can potentially enhance revenue. And indeed, "the bulk of IT expenditures going forward will focus on customer-facing stuff," says Tom Pohlmann, an analyst at Cambridge, Mass.-based Forrester Research Inc. But that's a long-term trend; in the near future, many CIOs and business executives, having been burned by expensive enterprise resource planning (ERP) and customer relationship management (CRM) implementations that delivered desultory returns, are focusing on internal upgrades with relatively certain payoff.

For example, Glen Allen, Va.-based Owens & Minor Inc. has ambitious strategic IT plans, but at the same time, "we've got to modernize our legacy business apps in 2003," says David R. Guzman, senior vice president and CIO. The $3.9 billion health care distribution and logistics company has a range of legacy applications written in what Guzman calls "mid-'80s alphabet soup" — MVS, Cobol, CICS and the like. The six-member IT governance team considered a major ERP implementation but rejected it as risky and likely to waste much of the company's existing data.

As an alternative, Owens & Minor will spend much of 2003 using RescueWare, a product from Cary, N.C.-based Relativity Technologies Inc. that converts legacy code into Java,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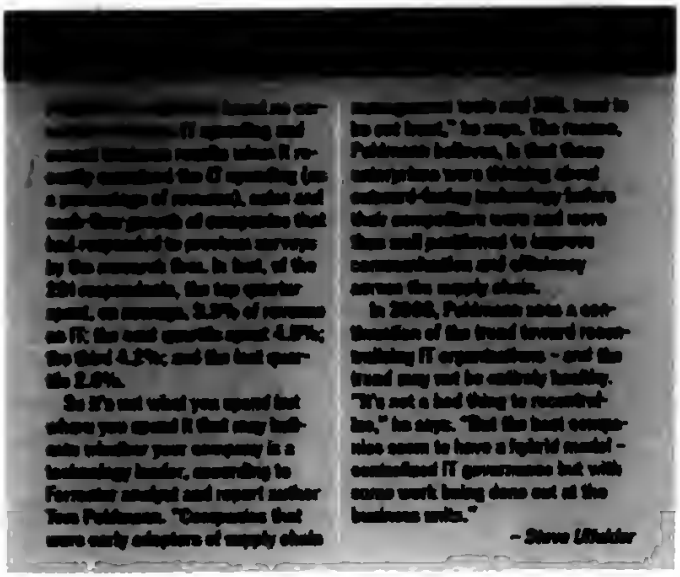
Results of a recent report from Aberdeen Group Inc. in Boston show a wait-and-see approach among IT executives at U.S. companies – at least through the first half of 2003.

47% of respondents said they plan to delay IT purchases at least until the second quarter of 2003.

21% said they won't buy any applications at all in the first half of the year.

84% cited "budget constraints" as the major reason for their delayed spending.

37% cited perceived lack of business value as the reason they plan to hold off on spending.



[redacted] IT spending and overall business results when it recently examined the IT spending (as a percentage of revenues), sales and cash flow growth of companies that had responded to previous surveys by the research firm. In fact, of the 200 respondents, the top quarter spent, on average, 3.8% of revenues on IT; the next quartile spent 4.8%; the third 4.3%; and the last quartile 2.6%.

So it's not what you spend but where you spend it that may indicate whether your company is a technology leader, according to Forrester analyst and report author Tom Pohlmann. "Companies that were early adopters of supply chain management tools and XML [need to be cut back]," he says. The reason, Pohlmann believes, is that these enterprises were thinking about outward-facing technology before their competitors were and were thus well positioned to improve communication and efficiency across the supply chain.

In 2003, Pohlmann sees a continuation of the trend toward reconfiguring IT organizations – and the trend may not be entirely healthy. "It's not a bad thing to reconfigure," he says. "But the best companies seem to have a hybrid model – centralized IT governance but with some work being done out at the business units."

– Steve Ulfelder

HTML and Visual Basic.

Guzman says he will also spend much of his time overseeing Owens & Minor's IT outsourcing deal with Dallas-based Perot Systems Corp. In July 2002, the companies expanded and extended their existing relationship into a comprehensive seven-year, $229 million services agreement. Previously, Perot Systems handled application development and network operations, while mainframe operations were outsourced to IBM. "We just gave Perot the whole pie," Guzman says, because projections for return on investment showed a savings of 35% over the seven-year contract.

What Guzman likes most about the Perot Systems deal is the agility it affords Owens & Minor. When operations are well in hand, Perot shifts its personnel to development tasks. Howard Rubin, an analyst at Stamford, Conn.-based Meta Group Inc., says such agility is a growing need for corporate IT. "Right now, even IT departments that have cut their budgets are too inflexible," he says, calling heavy upfront expenditures for infrastructure "the equivalent of buying an investment that you can't cash in for 20 years." Rubin says turning fixed costs into variable costs will be a major trend among IT leaders this year.

"We may have to control spending over the next 12 to 18 months, and I'm prepping my budget accordingly."

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Telecom Jitters

Another health care firm, TriWest Healthcare Alliance, is also planning internally focused projects for 2003. Premier 100 IT Leader James D. Gibson, director of IT at the Phoenix-based company, which offers health care for Department of Defense employees, says TriWest will upgrade its 800 desktops from Windows NT to Windows 2000 this year.

In addition, TriWest is studying requests for proposals for voice over IP (VOIP) telephone service. "We've not yet made the final decision to go ahead with that," Gibson says, "but we've done a cost-benefit analysis, and we think it'll pay for itself in two years."

TriWest is understandably nervous about the health of its telecommunications suppliers: Its local service is provided by Qwest Communications International Inc. and its long distance by WorldCom Inc. Gibson says the uncertainty surrounding these companies played a factor in his decision to invest in VOIP this year.

Getting Out Front

Leaders must anticipate change, and some Premier 100 IT Leaders are doing just that by adjusting their IT spending — before anybody tells them to. Emcor Group Inc., a global $3.7 billion construction firm in Norwalk, Conn., has enjoyed robust fiscal health throughout the economic downturn. But because construction lags the general economy, group CIO Joseph A. Puglisi is tightening his organization's belt in the budget proposal he's now developing. "We may have to control spending over the next 12 to 18 months, and I'm prepping my budget accordingly."

Puglisi has told IT managers to present their budget needs in three columns: committed costs, money needed to sustain the level of services Emcor's IT provided in 2002 and money the company would need to spend in order to improve services. Puglisi says "highfalutin wanna-haves" are unlikely to make the cut in 2003.

Improved security is a must-have, though, and it's an area Emcor will stress in 2003. Puglisi says he's particularly concerned about the company's Lotus Notes system. Emcor has 67 far-flung operating units and often grows through acquisition (it bought 16 companies in 2002 alone).

Often, an employee of one Emcor unit is asked to perform duties for other units in his geographic region. This causes secure-access problems. "Notes has very good security mechanisms, but they're rigidly defined," Puglisi says. "If you tell Notes, 'The data within an app is unique to a company,' then a worker for Company A can only see Company A data. That's a good thing, generally — but we need to let him see data for Companies B and C."

Naturally, though, any access must be secure. So in 2003, Emcor is "underwriting a significant investment in strong walls with good tunnels," Puglisi says.

Upping the Ante

Given the generally tight budgets this year, one of 2002's Premier 100 leaders may be the envy of the class of 2003. Steve Matheys, CIO at Schneider National Inc., will see his budget grow 20% to 25% this year. The $2.4 billion shipping and logistics company in Green Bay, Wis., "spent the last couple of years putting our business in order," Matheys says.

Schneider's eight-member IT steering committee sifts expenditures into three categories — run the business, grow the business and transform the business — and tries to spend 75% of all discretionary dollars on the third category. The company believes it can use technology to squeeze more expenses out of its supply chain, and much of the increased 2003 budget will go toward this goal. Matheys' team wants to integrate two homegrown applications that have heretofore stood alone: a proprietary decision-support system that weighs thousands of factors before recommending a shipping method and the CRM-type program that customer service representatives use when quoting rates over the phone.

Follow the Leaders

Although IT leaders' spending plans for this year depend heavily on industry demands and company needs, there's one important constant: In leading enterprises, IT budgets are driven by business strategy. This seemingly straightforward linkage has eluded CIOs ever since the data processing department became the MIS department.

Difficult fiscal times, return on investment disappointments following the tech spending spree of 1995-2000 and the maturation of the CIO's role have prompted businesses to allocate their IT budgets just as they do in other departments. The Premier 100 class of 2003 welcomes this shift — and as a result are helping their enterprises succeed.

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FRUGALITY RULES

An analysis shows that companies with the best-performing IT investments are often the most frugal spenders

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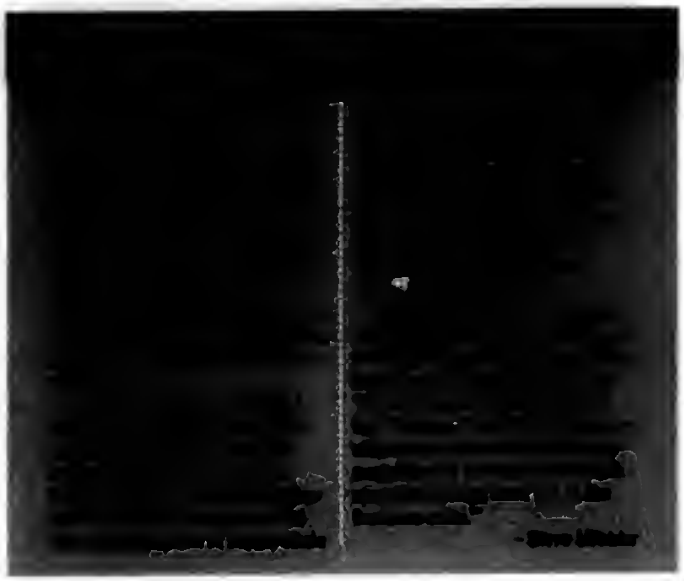

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WHAT ARE YOUR Top Projects?

IT leaders will pick and choose their projects this year, aligning each closely with business goals. Here are the top five projects the Premier 100 IT Leaders for 2003 will tackle in the year ahead.

MANDEL NGAN/AFP/GETTY IMAGES

HOW WILL YOU Automate Your Enterprise?

1 IT WAS A CALCULATED RISK, upgrading a 1,200-user PeopleSoft system from HP 9000s to less expensive servers from Dell Computer Corp. and from a Sybase Inc. database to Microsoft Corp.'s SQL Server.

But Damien Bean, vice president of corporate systems at Hilton Hotels Corp. in Beverly Hills, Calif., came out on top, getting the lower cost and higher performance he wanted. To do it, Bean says he had to convince his end users and vendors that "they could not afford to let a global brand name like ours fail."

Corporate IT managers are struggling with lengthy and expensive supply chain management projects that rely heavily on enterprise resource planning (ERP), says Jennifer Chew, an analyst at Forrester Research Inc. in Cambridge, Mass. A Forrester survey of 124 senior executives at North American companies that was conducted in August and September 2002 showed that they are spending an average of $6.8 million and 1.6 years to complete such projects.

To speed ERP installations, Chew suggests that customers follow process road maps provided by the vendors, use

HOW WILL YOU Connect With Customers?

2 FOR BLUE CROSS AND BLUE Shield of Minnesota, building self-service Web capabilities meant the difference between winning and losing several major clients, including retailer Target, Northwest Airlines and General Mills.

"Without it, they would not do business with us," explains John Ounjian, CIO and senior vice president of information systems and corporate adjudication services at the $5 billion insurance provider.

So when Ounjian explained to executives that the customer relationship management (CRM) project would cost $15 million for the first two phases, they didn't blink.

Companies worldwide will spend $15.4 billion on CRM initiatives this year, according to research firm Aberdeen Group Inc. in Boston.

Computerworld's Premier 100 IT Leaders will also spend big on CRM, enough to rank such projects second on their priority lists for 2003. Here, some of the Premier 100 honorees offer their advice for making these initiatives work.

Clarify Project Goals

Not all IT executives are having money thrown at them for CRM projects. But many say the best way to win allies and manage expectations is by sitting at the boardroom table.

At Cardinal Health Inc., a $7 billion maker of medical, surgical and laboratory products in McGaw Park, Ill., Richard Gius, senior vice president of IT, is on the company's capital review and operating committees, where IT projects are approved and funded. "That way, there are no surprises," he says.

Too often, business units approve projects and then confusion sets in when the IT staff is asked to deliver on something that's unclear. At Cardinal Health, "all of that is resolved before approval," Gius explains. His IT team is using CRM service tools to improve product returns, pricing and availability, and order fulfillment.

Dr. John Halamka, CIO at CareGroup Healthcare System, wanted to Web-enable medical records so that patients could access their own lab results, X-rays and doctor's notes, as well as make appointments and refill prescriptions. But he needed to take a creative approach to funding at CareGroup, a network of 17 hospitals associated with Harvard Medical School.

In the mid-1990s, academic health care faced rampant communication problems between doctors and patients, Halamka explains. The ability to solve this problem via the Web created "an incredible marketing value. So the board took a portion of the marketing budget [$250,000 for rollout and $500,000 annually] to fund the project," he says.

Involve the Business Side

CRM projects can redefine a company's entire operational infrastructure, so cooperation among executives and business units is critical to CRM project success. "Even the CEO must say customer service is Job 1," says Halamka.

St. Paul-based Blue Cross and Blue Shield of Minnesota learned the importance of communicating with business units during the design phase of its Web self-service screens. Ounjian and his technical team designed drop-down boxes that they thought were logical, but a focus group of end users found the feature cumbersome and the wording hard to understand. "We had to adjust our logic," he says.

Data integrity issues can also involve business units. At LexisNexis, a legal research provider in Dayton, Ohio, the IT staff added telesales and campaign management capabilities to its call

center. But during that time, the end users changed from law firm librarians to the lawyers themselves, which affected customer data. Allan McLaughlin, senior vice president and chief technology officer, recommended to the marketing group that it hold off rolling out a $6 million CRM system because data was unreliable.

"They didn't want to hear that. But we showed them that ROI would go negative," McLaughlin explains. Today, both marketing and IT are working to clean up contact information.

Overall, CIOs agree that disruption to the organization is inevitable with CRM projects and that the entire company should be prepared. "Management must understand that pots and pans are going to fall off the shelf," Ounjian says. "These transformations are disruptive and need an initiative right at the heel to add quality improvements, which will bring stability."

Collett is a freelance writer in Sterling, Va. Contact her at stcollett@aol.com.

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industry templates that spell out how to configure ERP systems for vertical markets and use those templates to develop proof-of-concept applications to gain buy-in from business users.

Whatever the problems, a report last year from Boston-based AMR Research Inc. predicted that ERP spending will remain steady at about $16 billion per year between now and 2006, and *Computerworld*'s Premier 100 IT Leaders ranked ERP systems as their top project for 2003. Here, several Premier 100 honorees who have survived these implementations offer their advice for success.

Get Early Buy-In

At the time of the Hilton upgrade in late 2001, no company had run such a large application on such comparatively modest platforms. Rather than using contracts to force the vendors to perform, Bean says he stressed how good it would be for them to prove that their products could handle the needs of a $3 billion global company.

"Michael Dell promised me face to face it would work," and Dell Computer provided $100,000 in funds to help get the project going, says Bean. He says he sold users on the project by explaining how the "replatforming" could save the company money while boosting performance.

When users feel that they're being forced to comply, Bean says, "you've got to drag everybody behind you," which creates friction. But if you get everyone on board upfront, "you've eliminated most of the friction points," he explains.

The result? Hilton cut $4.5 million to $5 million from its IT budget while boosting performance and adding "enormous" functionality, Bean says.

Take It Slow and Steady

Patience and prototyping helped Fredrick R. Pond, director of information services at Portland, Ore.-based Schnitzer Group, which includes real estate, steel and recycling companies, get 80% of the way through a complex, five-year ERP implementation.

The project involves a transition from a legacy Digital VAX to J.D. Edwards & Co.'s OneWorld software for financial, distribution and manufacturing, plus software from PeopleSoft Inc. for human resources and payroll. So far, the work has come in on schedule, or close to it, and under budget; the final work will wait until the economy improves.

Pond says he broke the project — which has cost $4.3 million so far — into manageable chunks, listened to users' concerns, compromised when he could and used prototypes to prove that ERP wasn't the end of the world.

Pond says he got agreement on most changes by working with management and demonstrating the new features and lower support costs the system would bring. The changes he made were mostly to reports generated by the system, rather than to the core database. "Over the three- or four-month period, we had acceptance — but maybe not excitement — for how things would change," he says.

"Listening is the No. 1 thing," says Pond. "You've got to gain an understanding" of users' fears and concerns

Continued on page 20

HOW WILL YOU Connect With Customers?

BY STACY COLLETT

FOR BLUE CROSS AND BLUE Shield of Minnesota, building self-service Web capabilities meant the difference between winning and losing several major clients, including retailer Target, Northwest Airlines and General Mills.

"Without it, they would not do business with us," explains John Ounjian, CIO and senior vice president of information systems and corporate adjudication services at the $5 billion insurance provider.

So when Ounjian explained to executives that the customer relationship management (CRM) project would cost $15 million for the first two phases, they didn't blink.

Companies worldwide will spend $15.4 billion on CRM initiatives this year, according to research firm Aberdeen Group Inc. in Boston.

Computerworld's Premier 100 IT Leaders will also spend big on CRM, enough to rank such projects second on their priority lists for 2003. Here, some of the Premier 100 honorees offer their advice for making these initiatives work.

Clarify Project Goals

Not all IT executives are having money thrown at them for CRM projects. But many say the best way to win allies and manage expectations is by sitting at the boardroom table.

At Cardinal Health Inc., a $7 billion maker of medical, surgical and laboratory products in McGaw Park, Ill., Richard Gius, senior vice president of IT, is on the company's capital review and operating committees, where IT projects are approved and funded. "That way, there are no surprises," he says.

Too often, business units approve projects and then confusion sets in when the IT staff is asked to deliver on something that's unclear. At Cardinal Health, "all of that is resolved before approval," Gius explains. His IT team is using CRM service tools to improve product returns, pricing and availability, and order fulfillment.

Dr. John Halamka, CIO at CareGroup Healthcare System, wanted to Web-enable medical records so that patients could access their own lab results, X-rays and doctor's notes, as well as make appointments and refill prescriptions. But he needed to take a creative approach to funding at CareGroup, a network of 17 hospitals associated with Harvard Medical School.

In the mid-1990s, academic health care faced rampant communication problems between doctors and patients, Halamka explains. The ability to solve this problem via the Web created "an incredible marketing value. So the board took a portion of the marketing budget [$250,000 for rollout and $500,000 annually] to fund the project," he says.

Involve the Business Side

CRM projects can redefine a company's entire operational infrastructure, so cooperation among executives and business units is critical to CRM project success. "Even the CEO must say customer service is Job 1," says Halamka.

St. Paul-based Blue Cross and Blue Shield of Minnesota learned the importance of communicating with business units during the design phase of its Web self-service screens. Ounjian and his technical team designed drop-down boxes that they thought were logical, but a focus group of end users found the feature cumbersome and the wording hard to understand. "We had to adjust our logic," he says.

Data integrity issues can also involve business units. At LexisNexis, a legal research provider in Dayton, Ohio, the IT staff added telesales and campaign management capabilities to its call center. But during that time, the end users changed from law firm librarians to the lawyers themselves, which affected customer data. Allan McLaughlin, senior vice president and chief technology officer, recommended to the marketing group that it hold off rolling out a $6 million CRM system because data was unreliable.

"They didn't want to hear that. But we showed them that ROI would go negative," McLaughlin explains. Today, both marketing and IT are working to clean up contact information.

Overall, CIOs agree that disruption to the organization is inevitable with CRM projects and that the entire company should be prepared. "Management must understand that pots and pans are going to fall off the shelf," Ounjian says. "These transformations are disruptive and need an initiative right at the heel to add quality improvements, which will bring stability." ▶

- **Minimize customization of off-the-shelf software.**
- **Don't add technical features just because they're available.**
- **Manage data movement, and insist on data integrity.**

Collett is a freelance writer in Sterling, Va. Contact her at stcollett@aol.com

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- **Make sure end users are willing to pay for the project. That way, they too have "skin in the game" and an incentive to make the project work.**
- **Deliver bad news early - don't wait for a formal meeting. No one likes to be surprised.**
- **Minimize the amount of data you convert to the format and data descriptions required by the new system, because not all the data will be converted properly.**

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Continued from page 19

and then demonstrate how ERP can make their lives better, Pond advises.

Schnitzer now closes its quarterly books in 11 days rather than 26 and can instantly update labor costs.

Delegate and Conquer

At George Washington University, CIO David Swartz's goal was to improve services for students, staff and suppliers by transitioning off mainframe applications. The new environment uses SCT Banner from SCT Corp. in Malvern, Pa., for student, financial aid and human resources data, and Oracle Corp.'s Financials suite for general accounting and financial tracking.

Swartz says his success is the result of an early plan to split responsibility for the ERP implementation among several departments at the 19,000-student Washington-based campus. Each department got control over its data and the interfaces its users would see, as well as a data warehouse so users could create their own reports without customizing the core ERP system. The IT organization keeps the system up and running and provides security and the corporate help desk.

The Oracle and SCT Banner systems, which together cost about $27 million, haven't saved the university money, but they've made life easier. Travel reimbursement times have dropped from weeks or months to days, and students can register for courses and order books online. With users creating their own reports, IT's backlog has been cut from as long as two years to "almost nothing," Swartz says. The ERP system also paves the way for new applications to track potential donors.

Swartz says he agreed to a "handful" of customizations. But he adds that he was usually able to win compliance with the new ERP workflow by communicating "the advantage of moving towards the enterprise model . . . keeping the lines of communication open and keeping [users] involved in the project, not just dumping it down on them."

Backing from top university leadership was sometimes needed to make the most drastic changes in workflow stick. But, says Swartz, "I think it's well worth it if you can get through it." ◗

Scheier is a freelance writer in Boylston, Mass. Contact him at rscheier@charter.net.

HOW WILL YOU

Integrate Technology With Business?

BY BOB VIOLINO

WHEN BAXTER INTERNATIONAL Inc. began exploring an enterprise application integration (EAI) project in 2001, its plan was to improve the exchange of information with others in the health care industry, including suppliers, manufacturers, care providers, insurance companies and patients.

EAI "will allow us to be more agile, to react more quickly to changes," says CIO John C. Moon.

"The health care industry traditionally has been very fragmented, with the various constituents using many different types of systems and all having different needs," says John C. Moon, CIO at the Deerfield, Ill.-based provider of health care equipment and supplies. "We see EAI as a way to help us connect our systems to those of suppliers, physicians, insurance companies and others. That will allow us to be more agile, to react more quickly to changes in the marketplace."

EAI involves using software to connect a variety of applications into a cohesive unit and thereby helps enterprises align systems more closely with business processes. It's become a critical part of the IT strategy at many organizations looking to meld disparate systems and quickly deliver data to employees, customers and partners.

Mark Ehr, an analyst at Enterprise Management Associates in Boulder, Colo., expects the EAI market to grow as companies continue to integrate front- and back-office applications, Web services and legacy applications. Some analysts say companies can expect to spend $200,000 to $400,000 on an EAI project, including software and installation costs.

EAI was the third most-cited project Premier 100 IT Leaders said they plan to undertake in 2003. And while IT managers who have completed or launched EAI projects say there can be significant benefits, they also point out that such efforts require specific skills and extensive coordination among multiple departments. Here, they offer advice for successful EAI projects.

Measure Expected Benefits

Baxter will launch the first phase of its EAI project this month, using an integration platform from Fairfax, Va.-based webMethods Inc. to link a Web-based customer service application to its enterprise resource planning (ERP) system. This will allow customers to place orders, check order status and delivery schedules, and conduct other transactions electronically. Most customers are now able to conduct business with Baxter only by phone, Moon says.

Baxter plans to expand its EAI to supplier systems so it can make its supply chain operations more efficient through inventory reductions and faster electronic ordering. The company is also considering using EAI software to connect medical devices to its ERP systems so, for example, patients using home kidney dialysis machines could order supplies using intelligent agents installed on the machines.

When it came to getting funding for the project, Moon says Baxter evaluated the need for EAI based on the number of systems it would affect, the costs and the potential business benefits. Planners presented a cost-benefit analysis to senior managers for each system that could benefit, Moon says. "We made the case that there would be increased speed [of transactions], fewer people to do interfaces and cost reductions," Moon says. It took about five months to build the business case, gather information on available EAI products and get approval for the overall effort, which began as a pilot in the fall of 2001.

EAI isn't without hurdles. "It's both costly and complex," Moon says. "There are a lot of proprietary architectures [among systems to be connected], and you need to put your technical staff through a great deal of training." Baxter has relied on outside EAI consultants to work not only with

Continued on page 21

- Manage and control EAI implementation from a central group, with input from IT and business managers.
- Have the skills and/or training programs in place to implement and maintain EAI software.
- Have IT staff work in conjunction with other departments, such as customer service or sales, in the implementation of EAI.

Continued from page 19

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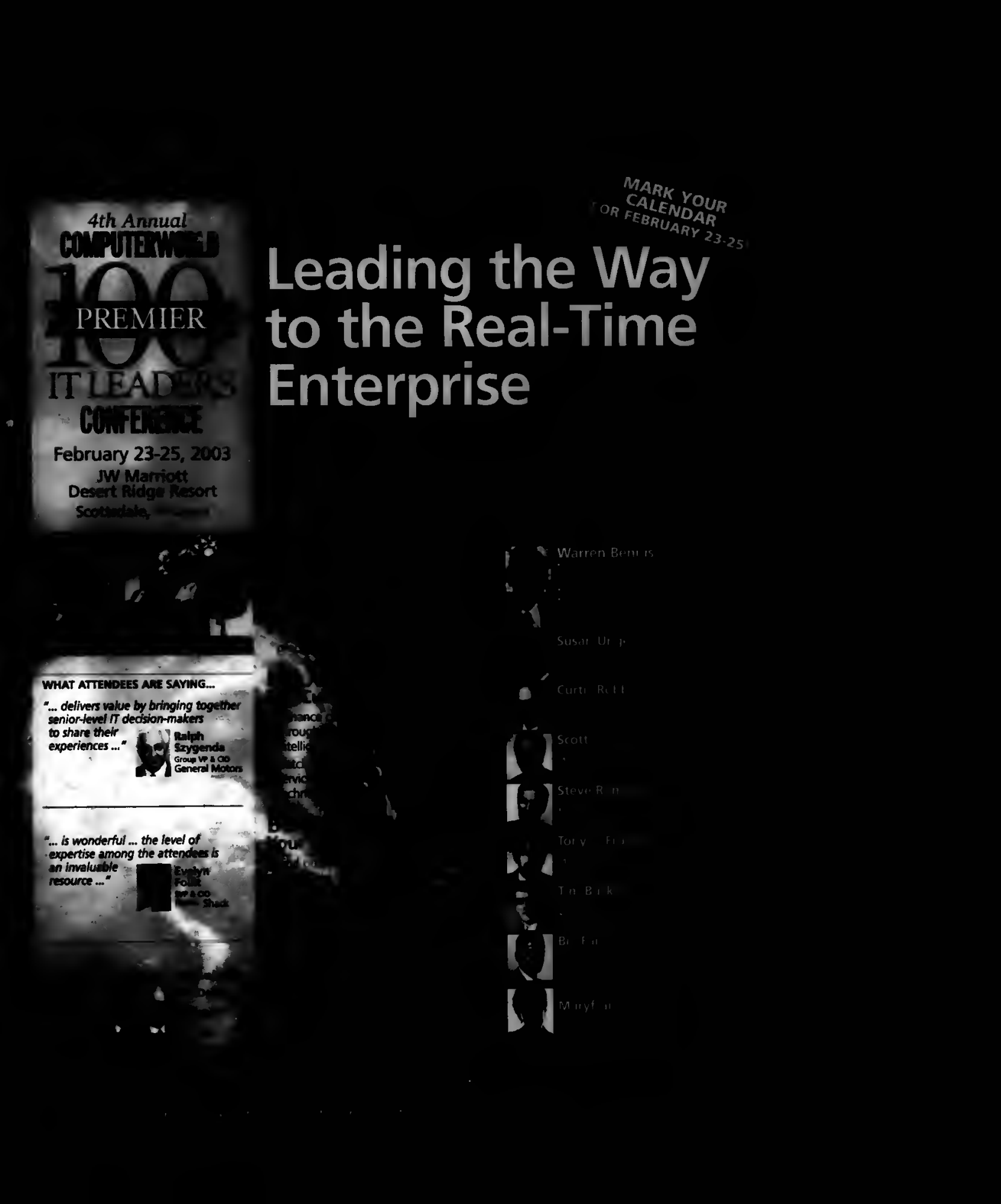
Continued on page 21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Tony Fi
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PREMIER

IT LEADERS

CONFERENCE

February 23-[illegible], 2003

JW Marriott
Desert Ridge Resort
Scottsdale, Arizona

Why You [illegible] Attend

Need to [illegible] and [illegible] real-time enterp[illegible]

Want to exchange innovative ideas and strategies with other top IT executives? Then attend Computerworld's Premier 100 IT Leaders Conference, the ONLY conference where you can hear from — and network with — Computerworld's Premier 100 IT Leaders.

Who Are the Premier 100?

They're a unique set of award winning IT executives with valuable lessons to share and advice to offer YOU. They are technologists who understand business needs, take calculated risks and lead through innovation. They are CIOs, vice presidents of IT, directors of IT and business managers honored as Computerworld's Premier 100 from a wide swath of vertical industries. When you attend this unique conference, you'll hear proven examples of how these IT Leaders have advanced their organizations through innovative leadership and proven strategies.

What is Unique?

Crafted by C[illegible], the conference offers a [illegible] departure from the [illegible] IT event, [illegible] great

Maryfran Johnson

CONFERENCE AGENDA

[illegible]UARY 23

[illegible] Golf Outing

7:00[illegible]

Pre-conf[illegible]ce Networking Reception

MONDAY, FEBRUARY 24

7:00am to 8:00am
Buffet Breakfast

8:00am to 8:15am
Welcome and Opening Remarks
MARYFRAN JOHNSON, EDITOR IN CHIEF, COMPUTERWORLD

8:15am to 8:45am

Opening Keynote
Driving the Digital Factory: DaimlerChrysler's Design Automation Push
SUSAN UNGER, SVP & CIO, DAIMLERCHRYSLER AG

Escalating its use of IT in car design and factory automation, the world's third-largest automaker has embarked on a massive "Digital Factory" project aimed at reducing production [illegible] by up to 30%. CIO Susan Unger will detail how the use of [illegible]ing, simulation and visualization tools is enabling DaimlerC[illegible] to push IT beyond its traditional roles in the car manufacturing process, but more importantly, how the project is changing the way technology is leveraged for business benefit.

8:[illegible]am to 9:[illegible]

Blueprint for Tomorrow's Infrastructure
PANEL, [illegible] DOUTEMARK, NEWS SERVICE, [illegible] of IT [illegible] in 2003

[illegible]Business Value Out of [illegible] Information
[illegible], DELTA AIR LINES

through its self-service kiosks and gate information display screens; to forecasting and optimizing fleets, routes, pricing and inventory, the Delta Nervous System has transformed the business by delivering up-to-date information through a "publish and subscribe" architecture.

10:15am to 10:30am
Break

10:30am to 11:[illegible]

Vanguard Financial: Leveraging the Web Across Multiple Business Channels
TIM BUCKLEY, CIO, THE VANGUARD GROUP

Technological excellence can be a means of helping clients to meet their goals, but the race to embrace new technologies must always make business channels the priority. At Vanguard, IT resources for Web development play a dual role on the business side, improving quality and reducing savings for clients. In this session, Vanguard CIO Tim Buckley will examine how the $600 billion financial services firm has leveraged its Outside technology to integrate systems across multiple business channels with results that include streamlined business processes, enhanced [illegible] and most importantly, satisfied [illegible] clients as complex their relationship with [illegible]

11:30am
[illegible]
IT [illegible] Studies

IT [illegible] Studies

Noon to 12:30pm
Concurrent Sessions
IT User/Customer Case Studies

12:30pm to 1:30pm
[illegible] Luncheon

2:00pm
[illegible] Presentation
[illegible], CIO, MERRILL LYNCH

IT's Role [illegible]

[illegible]
and to the [illegible] ahead of the world's [illegible] relationship between [illegible] handles one of the [illegible] tation, technology and [illegible] tell about stories of [illegible] medical technology, and [illegible] amplify each other's [illegible]

CONFERENCE AGENDA

HOTEL RESERVATIONS

IDG Travel is the official travel company for the Computerworld Premier 100 IT Leaders Conference. They are your one-stop shop for exclusive discounted rates on hotel accommodations.

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* See IT End-User description on the registration application on reverse.
** See Non-Sponsoring Vendor description on the registration application on reverse.

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Or simply complete and fax or mail the registration application

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- **You will receive a confirmation via email**

QUESTIONS?
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- **Email: p100reg@computerworld.com**

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OPTIONS:

All dollar amounts are in U.S. funds; registrations include full access to all sessions, the Expo, meals and receptions. Transportation and hotel accommodations are your responsibility and can be reserved by visiting www.etcentral.com, calling 1-800-340-2262 or emailing eventhousing@idg.com

	Earlybird Registration (through January 17, 2003)	Full/On-Site Registration (on or after January 17, 2003)
IT End-User:*	❑ $1,495	❑ $1,795
Non-Sponsoring Vendor:**	❑ $5,000	❑ $5,000

*IT End Users are defined as those who are attending Computerworld's Premier 100 IT Leaders Conference with an intent (and an IT spending budget) to potentially buy/purchase hardware/software/services/etc. from our conference sponsors and exhibitors. As such, account representatives/business development from any company, analysts, venture capitalists, and anyone else attending who does not have IT purchasing influence within their organization are excluded from the "IT End User" designation. Enforcement of this interpretation and policy is at the sole discretion of Computerworld. Questions? Please call 1-800-883-9090.

**Vendors are encouraged to participate in Computerworld's Premier 100 IT Leaders Conference through sponsorship. (Details are available by calling Leo Leger at 1-508-820-8212.) Alternatively, vendors (as well as venture capitalists, equity analysts, and other "non-IT end-user" professionals as defined by Computerworld) may apply for registration at the "non-sponsoring vendor" rate. Determination of what constitutes a "non-sponsoring vendor" registration is at the sole discretion of Computerworld.

Registration Information: (This section must be completed in order to process your application)

First Name: _____ Middle Initial: _____ Last Name: _____

Title: _____ Company: _____

Street Address: _____ Suite, Apt., etc.: _____

City: _____ State/Prov: _____ Zip/Postal Code _____

Country: _____ Phone Number _____ Extension: _____

Fax Number: _____ E-Mail Address: _____

Badge Name: _____ ❑ Special Services Required? (Please attach written description)

Would you like to receive information about playing in the golf outing on Sunday, February 23rd (PM)? ❑ Yes ❑ No

Please indicate your preferred conference shirt size: ❑ S ❑ M ❑ L ❑ XL ❑ XXL ❑ XXXL

Attendee Profile: (This section must be completed in order to process your application)

Your Organization's Business / Industry?
(Check Only One)
- ❑ Transportation / Utilities
- ❑ Mining / Oil / Gas
- ❑ Non Profit / Trade Association
- ❑ Media / Publishing
- ❑ Banking
- ❑ Finance
- ❑ Accounting
- ❑ Insurance
- ❑ Real Estate
- ❑ Telecommunications
- ❑ Wholesale / Retail (non-computer)
- ❑ Computer Service Provider
- ❑ Advertising / Marketing / Public Relations
- ❑ Entertainment
- ❑ Education
- ❑ Food Industry
- ❑ Government / Military
- ❑ Healthcare / Medical Services
- ❑ Travel /Hospitality / Recreation
- ❑ Manufacturing (non-IT)
- ❑ Automobile
- ❑ Transportation / Utilities / Energy
- ❑ Computers, Communications or Peripheral Equipment or Software Manufacturing
- ❑ Agriculture / Forestry / Fisheries
- ❑ Other

Your Primary Job Title / Function?
(Check Only One)
- ❑ CIO, CTO
- ❑ Vice President of IT
- ❑ Director, Manager, Supervisor of IT
- ❑ Other IS / IT Manager
- ❑ Chairman, CEO, President, COO
- ❑ CFO, Controller, Treasurer
- ❑ GM, VP, Director
- ❑ Other Corporate / Business Manager
- ❑ Corporate / Business Staff
- ❑ Consultant

Your Personal IT/IS Spending Authority?
- ❑ $5 million+
- ❑ $1 million - $4.9 million
- ❑ $500,000 - $999,999
- ❑ $100,000 - $499,999
- ❑ Under $100,000
- ❑ None

Number of Employees (ALL Locations)?
- ❑ 5,000+
- ❑ 1,000 - 4,999
- ❑ 500 - 999
- ❑ Under 500

What is your Company IT/IS Budget?
- ❑ Over $1 billion
- ❑ $100 million - $999.9 million
- ❑ $10 million - $99.9 million
- ❑ $1 million - 9.9 million
- ❑ Less than $1 million
- ❑ None

What is Your Organization's Primary Vendor for Servers?
- ❑ Dell
- ❑ Hewlett-Packard / Compaq
- ❑ Hitachi
- ❑ IBM
- ❑ Sun
- ❑ Other

Your Organization's Enterprise Standard for Mobile Device Management Software?
- ❑ Aether Systems
- ❑ Altiris
- ❑ Computer Associates
- ❑ Extended Systems
- ❑ Hewlett-Packard / Compaq
- ❑ IBM Tivoli
- ❑ Landesk Software
- ❑ Managesoft
- ❑ Marimba
- ❑ mFormation
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Share Costs With Units

Another company attempting EAI, GE Power Systems in Atlanta, began a project three years ago and is now reaping the benefits. The subsidiary of General Electric Co. had "a collection of business units running as independent operations, with the majority of their systems not interconnected," says Alan Boehme, former e-technology CIO at GE Power who recently left to join Best Software Inc. as executive vice president and CIO.

GE Power uses the webMethods platform to share data among its disparate legacy systems, ERP software and Web-based applications. The benefits have included the ability to send data in real time from one system to another, and improved quality and accuracy of the data.

GE Power set up a project management office to implement EAI and track its benefits to the company, Boehme says. Although it's centrally managed, EAI is funded by individual projects run by various functional units within the business divisions. "That's where the benefit accrues, so we pushed the cost and the actual physical work into the functional units," Boehme says.

The decision on whether to invest in EAI was determined by each functional unit based on the estimated cost of implementing EAI adapters compared with the perceived benefits.

"A lot of IT departments held off on investing in EAI because they were waiting for a maturation in the technology, and they were waiting for the market to shake out and a few clear leaders to emerge," Enterprise Management's Ehr says. "EAI products have reached a maturation level in the past couple of years that make them considerably easier to implement, resulting in a more rapid ROI than was possible before."

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HOW WILL YOU Build Business On the Web?

BURIED UNDER AN AVALANCHE of paper requests for insurance bids, Providence Washington Insurance Co. sometimes took [redacted] weeks to reply — a delay that proved costly.

"We felt that we lost business in the past because we were too slow to get price quotations out," says Edward N. Leveille, vice president of systems and CIO at the East Providence, R.I., insurance firm.

The solution was a Web-based price quotation system — an extranet portal for third-party independent insurance agents — that has sped up the accurate delivery of bids for custom business insurance contracts. The project automated the sales process and saved money on internal paper-shuffling.

In a tight budget year, e-commerce IT projects haven't lost their appeal. *Computerworld*'s Premier 100 IT Leaders ranked e-commerce projects fourth on their list of top priorities for 2003. But the rules have changed. Required-payback times are shorter, often no more than a year. E-business initiatives tend to focus on improving order or sales-lead management, tuning the sales channel or creating business partner self-service portals.

"The goal of e-commerce these days is to increase your sales volume with the same number of employees in order to bring down the cost per transaction," says Gene Alvarez, vice president of electronic-business strategies at Meta Group Inc. in Stamford, Conn. "If you can take phone or fax transactions and do them via the Web, you can save money."

New York-based e-business research firm eMarketer Inc. projects that 2003 worldwide e-business IT expenditures will be $245 billion, up 49% from $164 billion in 2002. Premier 100 IT Leaders who have reaped the benefits of e-business projects share some tips for success.

Build in Buffer Time

With Providence Washington's extranet portal, independent insurance agents no longer need to submit paper bid requests to the company via fax or conventional mail. The portal also replaces the time-consuming process of keying information into the computer system. Once the portal is complete, Providence Washington will be able to make bids in minutes, vs. taking up to three weeks with the paper-based system.

In a test, agents in two states are now using the extranet portal to submit requests for bids; the goal is to expand the portal's use to agents in 14 additional states by midyear. The 18-month project cost about $3 million and is expected to reap a return on investment within three years, Leveille says. Payback should come from a combination of improved internal productivity and additional insurance revenue through the agents, he says.

The e-business project taught Leveille to carefully check out the financial status of vendors and to leave extra time for project completion. "[You must] accommodate problems that shouldn't happen but will when you are interfacing multiple systems together," he says.

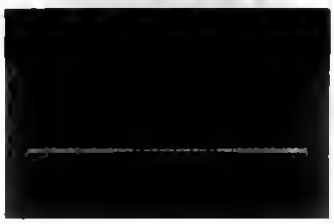
Get the Word Out

At Tharco Inc. in San Lorenzo, Calif., a similar project allows customers to check on the availability of different types of packaging materials, create and track orders and verify order delivery on the Web.

Tharco — which makes corrugated and foam packaging materials for customers such as electronics firms, grocery stores and wineries — was looking for an interactive e-business approach that would both engage customers and cut Tharco's internal costs. It chose a Web front end from Raleigh, N.C.-based Haht Commerce Inc. for its own SAP system. Obtaining orders over the Web reduced the company's reliance on the customer service representatives, who typically receive orders by phone or fax and then key the orders into the computer system, says Bill Picton, Tharco's MIS director.

"It saves money for us, and for the customers, it means one less chance for error in the order. And because it's linked to our SAP system, customers get specific, real-time pricing on every order," Picton says.

The Web-based ordering succeeded where earlier e-business attempts had failed. One unsuccessful approach involved a noninteractive catalog that didn't include prices; another failure was a third-party hosting arrangement that didn't eliminate enough paperwork, Picton says.



Tharco's Web ordering method has proved popular with customers since it went live in March 2001, and it now accounts for about 10% of the firm's off-the-shelf packaging materials business, or about 6.5% of total revenue, Picton says. That success came partly because Tharco aggressively marketed the project to its customers.

"We had to reach out to them and show the people who do the daily ordering how it works," Picton says. "We sent our people to the customers' facilities to train them in using it. Then we had to let customers try it out for free for a week. That was the only way that customers got into it."

Tharco's three-month Web project cost less than $1 million and has already paid for itself, Picton says. "We're waiting to show a profit," he says. "But as the economy picks up, we will be able to support several times our current revenue with the combination of our existing customer service staff and this Web type of business approach."

Agribusiness firm J.R. Simplot Co. in Boise, Idaho, has a similar goal. It will launch a customer self-service Web portal early this year that will allow customers to order products or check order status. The company expects the portal to increase revenue and reduce costs, allowing it to recoup its initial investment of about $100,000 in less than a year.

"We want to differentiate ourselves in the marketplace by making it easier for customers to do business with us," says Roger W. Parks, Simplot's vice president of IT and CIO. "We also think this eventually will allow us to do more business with fewer employees in order entry and customer service."

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- **Check out the financial status of vendors, and leave extra time for project completion.**
- **Market your e-business project to customers, and follow up with training.**

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HOW WILL YOU Improve Your Core Systems?

"Involving the people who leave fingerprints on the keyboards is critical," says

THERE ARE FEW IT PROJECTS more fraught with danger than upgrading core systems. If you do things wrong, you've crippled the workhorse that carries the business.

On the other hand, the benefits of such a project can be enormous, says W. Douglas Lewis, executive vice president and CIO at Six Continents Hotels Inc., an international hotel management company, in Atlanta. Lewis is in the midst of installing a revamped central reservation system and local operations management systems for 3,200 hotels.

BY AMY HELEN JOHNSON

To make the project succeed, Six Continents partnered with end users from the start, says Lewis.

"Involving the people who leave fingerprints on the keyboards is critical, because they know what the hotels need," says Lewis. "If we had approached this from an IT point of view, it's likely we would have built the wrong solution."

Upgrades of core systems are among the top five projects the Premier 100 IT Leaders said they'll tackle this year. Getting things right is important because core system upgrades aren't cheap. Lewis and other Premier 100 IT Leaders share strategies for improving the odds of succeeding at these large, critical projects.

Test Your Powers Of Persuasion

Although Steve Scott, vice president of information systems division at Vision Service Plan (VSP) in Rancho Cordova, Calif., says he expects that upgrading the nonprofit organization's claims system will lower its cost structure, the more compelling rationale for his project is increased functionality.

Scott says he envisions the network's 20,000 optical businesses being able to do more self-service tasks, such as checking patient eligibility online. The new system also opens up the possibility of VSP's 36 million consumers being able to use the Internet rather than the telephone to do things like check on a claim's status, he says.

This type of business case is common, according to Allison Bacon, an analyst at AMR Research Inc. in Boston. It's hard to pin down a return on investment for a core system upgrade, because you're spending money on something that already works. Selling the project to upper management often requires making a compelling argument in favor of hard-to-measure benefits and new features.

Rent the Necessary Brains

If it's not a core competency, then outsource it, say IT leaders. Six Continents hired subcontractors to deploy the new systems in the hotels and conduct training. "It doesn't make sense to build that capability internally for a one-time activity," says Lewis. But he relies on his staff to do the application programming because they know the business better than an outsider would.

Henry Volkman, director of IT and CIO at Del Taco Inc. in Lake Forest, Calif., says his company will make use of outside help to upgrade its 254 point-of-sale systems. The fast-food chain is using an outsourcer to install the hardware in its restaurants, rather than stressing its busy internal staff with that chore. It's also working with Microsoft Corp. to design a SQL Server inventory database.

- **Involve the people "who leave fingerprints on the keyboards."**
- **Sell the project often by making a compelling argument in favor of "soft" benefits.**
- **A good manager with a mediocre crew can "run rings around a poor manager with a high-quality crew."**
- **Interim checkpoints are a must.**

The vendor of an application always knows its ins and outs better than you do, says Volkman, so it only makes sense to marry its expertise with your business knowledge.

Bacon says that having a mix of internal and external development teams gets you the most skills at the lowest cost. Using your own people means spending less and moving faster. But you need to lean judiciously on experienced vendors and outsourcers in order to gain the greatest benefits out of something that is new to your team, she says.

Make Sure Your CFO Says No

"My CFO can make a vendor cry and a nickel scream," says Volkman, who meets with his company's top financial executive weekly. He's the reason the upgrade project is on budget, Volkman says. If the project runs into a snag, IT has to find a way to fix it with what money is on hand. "You'll never get him to agree it was right to spend more money than budgeted," he says.

Volkman adds that it pays to hire only the best project managers. "You can take a good manager with a mediocre crew and run rings around a poor manager with a high-quality crew," he says.

Lewis also lays the credit for keeping his project on track at the feet of talented managers. "I can't brag about anything unique we did," he says. "We just managed the heck out of it."

Lewis adds, "I have a premise that big-bang projects blow up CIOs." So he stops every few steps to evaluate the results of the latest "little bang." For example, he says, putting the new system in a few hotels for beta testing revealed a problem with the communication systems. It was easier to change course at that point than after several hundred hotels were involved, he says.

Scott echoes that strategy. Interim checkpoints are a must, he says, and their associated performance metrics must be put into the plan from the very beginning. But it's just as wrong to be a slave to metrics as it is to ignore them, he says. Sometimes you have to do a reality check and recognize that a metric isn't working — and then you find another one, Scott says. ◗

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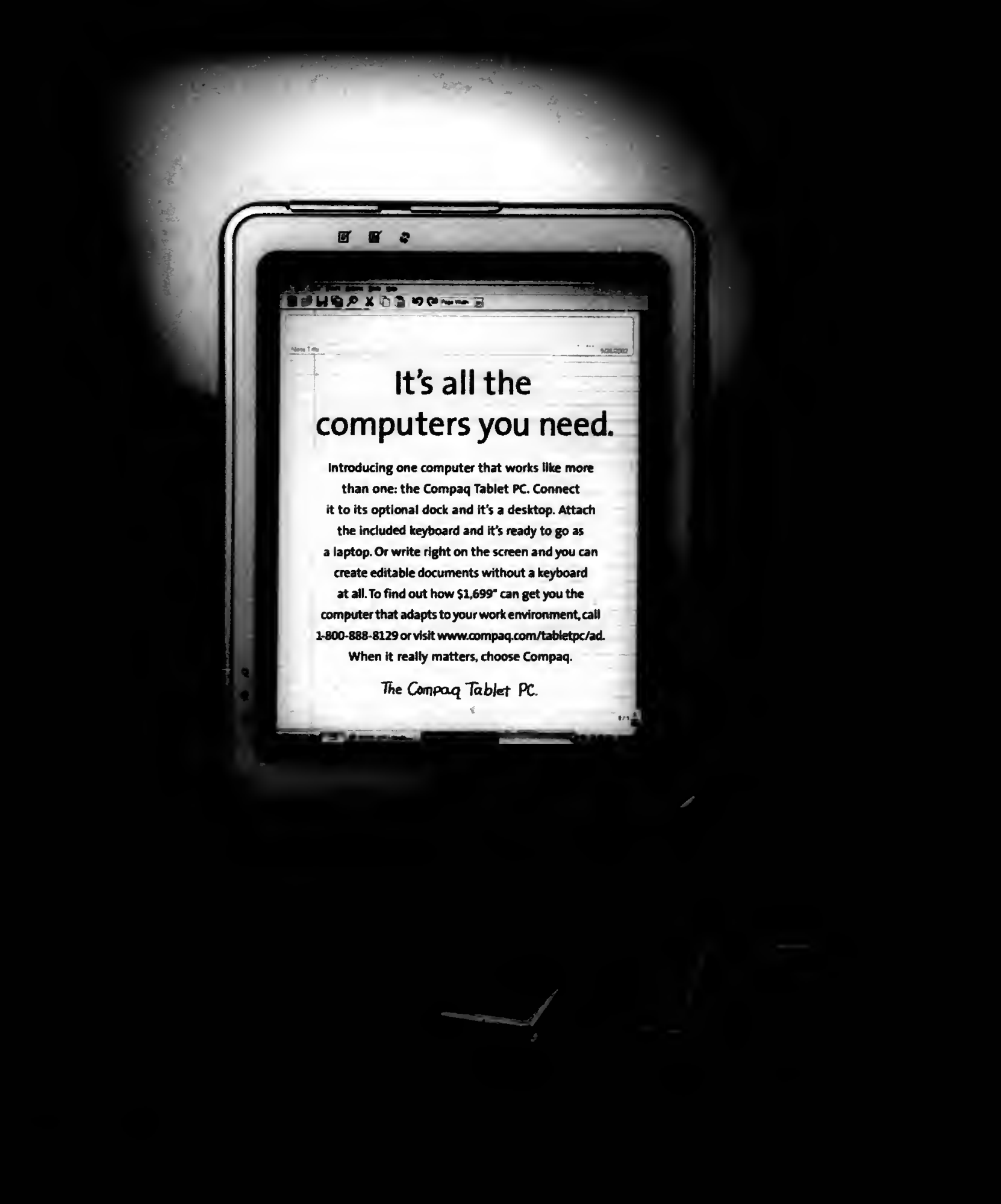
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The Compaq Tablet PC.

HOW WILL YOU Secure Your Company Data?

A stronger management commitment gives IT security more clout, but project funding, government regulation and ease of access to data still present big challenges. By Dan Verton

FOR IT SECURITY PROFESSIONALS, 2003 promises to be a year filled with old and new challenges. Whether balancing the needs of security with the push for greater access to data, coping with government mandates or planning for possible budget cuts, IT security managers have their hands full.

Frank M. Richards is already scrambling to deal with those challenges. As CIO at Geisinger Health System, a health care network in Danville, Pa., that serves more than 2 million people, he faces an April deadline for compliance with the federal Health Insurance Portability and Accountability Act (HIPAA). The law will require health care organizations to safeguard patient data from unauthorized access and disclosure.

But HIPAA sets goals without giving specifics on how to get there, so Richards must balance the legal requirements with a demand from health professionals for ease of access — a daunting challenge.

"This can be particularly problematic in the medical field, where care providers are under tremendous time pressures," he says. Understanding workflow, assessing risk and educating users are all key components of a security system that achieves the correct balance between access and control, he says.

Geisinger's Electronic Medical Record (EMR) program focuses on easing access to data. It lets physicians at 50 clinics use mobile devices to order medications, receive alerts, enter patient progress notes and communicate with patients. Another program, MyChart, lets patients access their medical information via the Internet.

Both programs raised security issues. For example, security needs dictated that the database that powers MyChart be installed on hardware separate from the EMR system. Richards' staff is also evaluating biometric and proximity devices as ways to streamline secure network access. And caregivers accessing patient information via the Internet will be required to use token identification in addition to a virtual private network or other encryption method, he says.

Richards says he expects 2003 to be the year when security technologies such as intrusion detection finally begin to deliver on their promises. "Inadequate analysis tools, incompatibility with existing network management software and inability to handle large volumes of data have combined to keep us from deploying these tools until very recently," he says.

Intrusion-detection system functionality will also begin to merge with firewalls in 2003, just as many organizations begin replacing first-generation appliances, according to analyst John Pescatore at Gartner Inc.

Strive for Better Recognition

This will also be the year when many organizations raise the profile of the IT security function. Geisinger's new security business plan calls for the creation of a chief information security officer position. "This will take the present IT system security officer position and elevate it to a more senior level, and will have it report [to corporate leadership] outside of IT," Richards says.

In Loudoun County, Va., the IT department recently hired its first information systems security administrator. Previously, IT security functions were delegated throughout the IT department, says IT director Eugene D. Troxell. "This position was recruited and filled at a time when the county government has a hiring freeze in place," which reflects a new understanding by management about the importance of IT security, he says.

At Geisinger, Richards also received support from the board of directors, which issued a statement last spring calling for a "a governance structure that supports the most effective and efficient provision of information security." This doesn't mean that funding is unlimited, but it does ensure that security will be given a higher priority than in years past, he says.

And most IT security budgets are reflecting this new emphasis. IT security's share of the IT budget was 4.3% in 2002 but will rise to 5.4% by 2005, says Pescatore.

Geisinger spends about $400,000 annually on IT security, including personnel, software and maintenance. Richards says he expects that to increase to about $600,000 by 2005, excluding any systems or assistance needed to respond to new threats.

But while security is a high priority, funding still doesn't come easily. The IT component of Loudoun County's 2002 annual independent financial audit included network security — another first. Among the audit's recommendations were performing an annual security vulnerability review and enhancing the security awareness program to ensure that all employees understand issues and policies, says Troxell. But in today's economy, funding an IT security program is unlikely because it would take dollars away from projects, such as new schools, roads and health care.

Geisinger has also had its share of economic challenges. Nonetheless, "investment in IT has been supported consistently by senior management and the board of directors," Richards says. "As a 20-year veteran of IT, I can honestly say that security concerns are more a part of people's consciousness than at any time in the past."

SECURING THE MAIL

Robert L. Otto, vice president of IT at the U.S. Postal Service and a Premier 100 IT Leader, describes a three-year plan to secure the service's infrastructure through sleet, rain, snow – and hacker attacks.

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HOW WILL YOU Optimize Your Infrastructure?

In their quest to improve efficiencies and cut costs, IT leaders will work to prime their existing technology through hardware consolidation, performance monitoring and application tuning. By Jaikumar Vijayan

AS VICE PRESIDENT OF MIS at Circuit City Stores Inc., William E. McCorey Jr. expects to spend a lot of time this year kicking the tires on his company's technology infrastructure.

Circuit City is very close to achieving a formal Six Sigma quality certification. Key to obtaining the certification is ensuring that Circuit City's hardware and software infrastructure is optimized for maximum system availability and service levels, McCorey says.

The Richmond, Va.-based electronics retailer isn't alone.

"Enterprises are being asked to do more with less. Their budgets are decreasing [and] their skill sets are decreasing, while what they're being asked to do is getting increasingly complex," says Theresa Lanovitz, an analyst at Gartner Inc.

As a result, expect to see IT efforts targeted increasingly at improving the use of existing technology through projects such as hardware consolidation, performance monitoring and application tuning, she says.

One of the big projects Circuit City is considering for 2003 is a Unix server consolidation. The company is exploring the possibility of reducing its 240 Hewlett-Packard Co. Unix servers into Superdome and RP class servers from HP. It has similar plans to consolidate its 13 IBM AS/400 midrange systems into a significantly lower number of large AS/400 boxes.

Circuit City is also using VMware Inc.'s virtualization software to boost usage rates on its Wintel servers. So far, it has deployed VMware on about 80 of its more than 230 Intel boxes.

The goal of these efforts is to reduce infrastructure and administrative costs by up to 15%, says McCorey. The use of Palo Alto, Calif.-based VMware's virtualization technology on Wintel servers has already pushed utilization rates from 20% to nearly 60%. At the same time, Unix server utilization rates, which now hover around 60%, are expected to be pushed to more than 80% as a result of the planned consolidation.

"We look to be a service utility," McCorey says. "Our goal is to keep the systems up and running as much as possible and to improve our performance."

Keep Tabs on Performance

Performance monitoring is a key component of infrastructure optimization, says Suzanne Gordon, vice president of IT at SAS Institute Inc. in Cary, N.C.

SAS monitors network performance and key server performance statistics using resource measures from Simple Network Management Protocol and Windows Management Instrumentation collectors, Gordon says.

Over the past year, SAS has also been using a homegrown system to consolidate all of its change management and resource-monitoring data. The system features automated alerts that notify administrators when a performance metric "falls outside of normal boundaries," Gordon says.

The technology has allowed SAS to identify underused systems "to see if we can retire or reallocate them," she explains.

For instance, a special conference-room scheduling system is being replaced by Microsoft Outlook's scheduler, and several related specialized reporting systems are being retired. Users will then be asked to find that same scheduling information in the company's customer relationship management system, Gordon says.

As part of its technology optimization, SAS also recently switched from a frame-relay network to an Internet-based virtual private network (VPN) to capitalize on the VPN's lower costs and faster speed, Gordon says. Server and storage consolidation projects are also in the works. To reduce maintenance, SAS is consolidating 45 Unix servers that host some of its internal applications into 10 to 15 servers.

Centralize IT Resources

Integrating and centralizing the operations and management of IT infrastructure is also a good way to optimize it, says Mario C. Carlos, head of IT at Manila Electric Co. in Pasig, Philippines.

Centralization maximizes the sharing of resources, makes it easier to develop and implement a disaster recovery plan, minimizes spare capacity, and provides for a less complicated data communications infrastructure, Carlos says. It also makes it easier to secure the infrastructure and provides for easier backup, recovery and disk storage management, he adds.

The utility company has moved from a highly distributed, decentralized environment to a "centralized and partially meshed architecture," Carlos says. Technologies key to the transition were storage arrays from EMC Corp. for data sharing across mainframe and open systems, Storage Technology Corp. applications for remote backup and synchronization of local and remote data, and IBM's Parallel Sysplex system to share mainframe resources across the organization.

Understanding business and service-level requirements is key to right-sizing the infrastructure, says McCorey. "You can't design a system unless you really understand what the application is going to do for the business and what the impact of either a downtime or poor performance is going to be," says McCorey, who uses usage histories and information gleaned from running similar applications to forecast needs for a new application. ▶

AMD

HOW WILL YOU Prove IT Value?

Most Premier 100 honorees rely on traditional ROI calculations, such as net present value and internal rate of return, to help demonstrate IT's business value. By Thomas Hoffman

THE PREMIER 100 IT LEADERS didn't reach the top of their professions by being softies. Indeed, a vast majority of them regularly rely upon hard-dollar metrics such as net present value (NPV) and internal rate of return (IRR) to consisteotly demonstrate to top brass the business value IT investments are expected to yield.

That's what sets them apart from so many of their colleagues. "Good business-case methodology leads to good project management, but it's amazing how many companies fall short here, primarily due to politics around this," says Stephen J. Andriole, a professor of business technology at Villanova University in Villanova, Pa., and a senior consultant at Arlington, Mass.-based Cutter Consortium.

But many of *Computerworld*'s Premier 100 honorees appear to have the discipline needed to prove the value of their organizations' IT investments.

"We apply all of the analytical rigor and financial ROI tools against each of our IT projects as well as other business projects," says Harriet Edelman, senior vice president and CIO at Avon Products Inc. in New York. Those tools include payback, NPV and IRR calculations, as well as risk analyses oo every investment, she says.

The $6 billion cosmetics giant also monitors each IT project to gauge its efficiency and effectiveness during the course of development and applies a red/yellow/green coding system to reflect the current health of a project, says Edelman. A monthly report abou the status of projects that are valued at more than $250,000 and deal with important strategic content is presented to senior line managers, the CEO and the chief operating officer.

In addition, Avon uses an investment-tracking database for every IT project to monitor project costs on a rolling basis. The approacb makes it easier for the company's IT and business managers to quickly determine whether a project should be accelerated, delayed or canceled and assists the finance organization in forecasting requirements.

Tally Soft Costs

Dennis S. Callahan says he, too, has "put a strong emphasis on governance" since becoming CIO at The Guardian Life Insurance Company of America two years ago. Callahan has done so, in part, by applying NPV and IRR calculations to all IT projects with a five-year casb flow.

"The poteotial [fallout] from inaction could result in loss of market share," says Callahan, who was promoted to executive vice president Jan. 1. So Guardian's approacb to IT investments "is very hard-dollar- and metrics-oriented, with a bias toward action," he says.

Still, Callahan and his team do have a process for incorporating "soft" costs and benefits into their calculations. Thev do that Callahan says, by encouraging their business peers "to discuss how an investment can impact market share and estimate how those oumbers are going to change. Same thing with cost avoidance — if we invest in a project, [that's] expected to help us avoid hiring 10 operations staffers to handle growing business-transaction volumes."

Like Avoo's Edelman, Callahan also keeps close tabs on capital spending throughout the course of a project. New York-based Guardian has a project management office that has access to its general ledger system so it can continually monitor the scope, time and costs of each project valued at more than $100,0000, according to Callahan.

Guardian also has monthly reviews of variances of scope, time and costs on all projects costing more than $100,000. "If one of those [variables] is off, we can review the business case and determine whether it warrants a change in game plan," he says.

Using return-on-investment calculations to cost-justify and demonstrate the value of IT investments to senior management is only one of the techniques *Computerworld*'s top IT leaders use to win project approvals, say Callahan and others.

"We approach everything that we do in terms of payback," says Callahan, who reports directly to Guardian President and CEO Dennis Manning. Manning and other board members "really relate to that kind of justification," Callahan says. "So we turn that into hard-dollar returns and benefits for application development and infrastructure investments."

"One of the biggest things we do in demonstrating value to the CEO and the board is showing that everything we do reflects the company's business strategy," says Rick Omartian, chief financial officer for Guardian's IT department.

Divide and Conquer

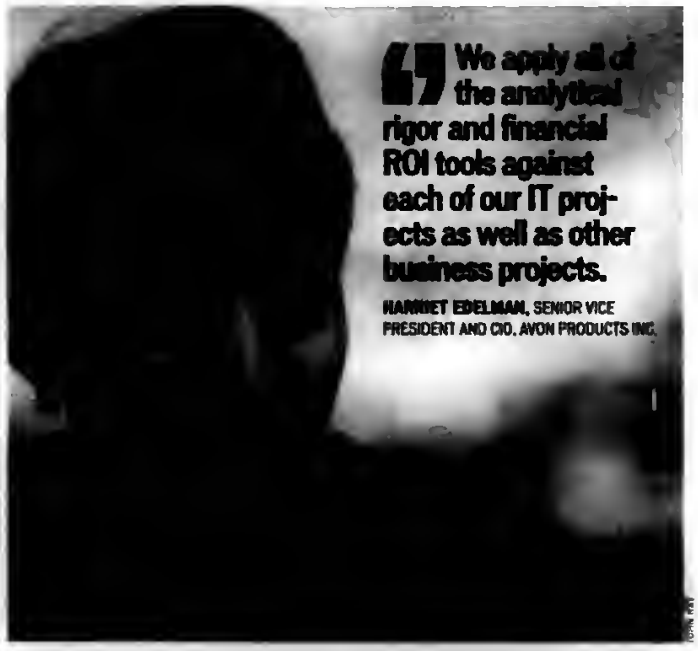
Corning Inc. uses a "divisioo strategy," which calls for its IT and business-unit leaders to get together every six to eight weeks to determine "where we're going and how we're going to get there," says Howard Piggee Jr., director of IT and CIO at Corning's Life Sciences divisioo in Acton, Mass. That way, the IT investment needed to support a business initiative "is not set apart" but instead is included in the business divisioo's integrated strategy, says Piggee.

Within the Life Sciences division, Piggee is one of nine executives, including the business unit leader and the department heads for sales, human resources, finance and new product development. Together, they weigh the total resource requirements of various IT investments and then decide as a group how to prioritize them, he says.

Of course, there are exceptions to these approaches. At Muscatine, Iowa-based HON Industries Inc., the manufacturer's board of directors "typically don't ask us" to prove the value of IT, says CIO Malcolm Fields. "Instead, they ask if we're spending enough."

That's because HON typically doesn't spend as much on IT as a percentage of revenue as other companies do, claims Fields. "We negotiate prices very, very hard and try to focus on the 20% of activities that give us 80% of the value."

Even that approach has a decidedly mathematical ring to it.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HOW WILL YOU Manage Your Labor Force?

Staff layoffs and budget cuts have put IT leaders' management skills to the test. Here's how some have picked up the pieces and helped workers left behind feel informed and valued. By Rick Saia

THE IT WORKFORCE, once lavished with high salaries, large sign-on bonuses and generous perks, learned the meaning of austerity with the dot-com bust of the late 1990s.

For some IT managers, the subsequent recession has offered up high-quality workers at bargain salaries. But for others, budget cuts and staffing reductions have stalled or stopped IT projects.

At the start of this new year, some of the 2003 Premier 100 IT Leaders are putting last year in their rearview mirrors and boping that better times lie ahead. Take Bernard Gay, vice president of enterprise technology and operations at Royal Caribbean Cruises Ltd. in Miami, a company hit hard in the aftermatb of Sept. 11. Within a few weeks of the attacks, Royal Caribbean had cut about half of its 400 IT workers — nearly all of its contractors and a third of its permanent staff.

But while the organization was leaner in 2002, Gay says it was more efficient as well. The remaining staffers were trained to fill gaps after the layoffs. Some took on roles that contractors had filled; others were trained to fill technical support and development jobs. "We found ourselves actually managing much more efficiently than we've done in the past," Gay says. "It's been a great year, and going into 2003, we hope to take that energy with us."

Gay foresees incremental growth in Royal Caribbean's IT staff this year and hopes to do more projects focused on customers. "We want to have a simpler view of the customer" — that is, tourists and travel agents, he says. "And we want the customer to have a simpler view of us." That includes upgrading the company Web site, integrating more enterprisewide applications and simplifying the way Royal Caribbean compiles analytical data.

Retrain to Retain

Bill Thomas, a senior vice president at Providian Financial Corp., a $5.8 billion credit card provider and financial services company, has also dealt with layoffs recently. San Francisco-based Providian cut approximately a third of its IT staff, or about 250 people, starting last spring. Meanwhile, the IT organization launched a major strategic shift from building systems to integrating systems in an effort to improve efficiency, which changed mucb of the needed skill sets. At the same time, Providian reorganized IT from a decentralized to a centralized structure, Thomas says.

The layoffs hurt morale, he says, but the effect was less severe than he had expected. And although be believes morale has since improved, he acknowledges that it's not as high as it was in the late 1990s, wben Providian had three straight years of double-digit profit growth.

This year, Providian will have a flat or declining IT budget of about $450 million, according to Thomas, with a promise to management that projects will have a clear return on the bottom line. To that end, the IT department has dumped some of its application development work and outsourced other functions. It will also redeploy personnel into other, higher-value roles and boost their training.

Grab Hiring Opportunities

For some cost-conscious IT leaders at growing businesses, the recession's effect on salaries has been a help.

Greg Schueman, vice president and chief technology officer at Mercury Insurance Group in Brea, Calif., has increased his IT department by 10% since 2001, to about 130 workers.

"It's actually very easy to find people, because there's such a pool available," he says. These seasoned workers have the appropriate certifications and are willing to work for less than what they could earn in a booming economy, Schueman says.

For example, he recently hired an Oracle DB2 database administrator, whom he calls "one of the best on the West

Coast," for less than what he would have earned two years ago. Schueman says such talent commanded annual salaries of about $160,000 then; today, they're earning about a third less.

The recession has also brought good news for John A. Bielec, vice president and CIO at Drexel University in Philadelphia. With the higher-education industry growing, he says, Drexel is finding it easier to fill IT positions at wages that are in line with candidates' expectations.

Bielec says his IT organization is lean, which in boom times can hamper efforts to find — and keep — qualified people. Whereas his annual turnover rate was about 20% to 30% two years ago, he estimates it to be 5% today. And, he says, "I don't see anybody leaving in the next six months."

Maria Schafer, an analyst at Meta Group Inc., says she doesn't anticipate that IT spending will rebound anytime soon, at least not until around midyear. "There's going to come a point where something is going to have to give," she says. For now, IT demand is in a lull, and some IT shops are "selectively hiring" experienced help where it's needed, such as in network, security and database administration, Schafer says.

Take a Skills Inventory

The recession has taught some companies a hard lesson about budgeting and the difficult task of reducing staff, according to Craig Symons, an analyst at Giga Information Group Inc. in Norwell, Mass.

DIANE J. BUNCH

GREG SCHUEMAN

To prepare for an economic rebound, IT organizations will be more "aggressive and proactive" in taking a skills inventory and deciding what they need for the future, he says.

So, how much will they rely on existing staff as opposed to contractors, outsourcing or hiring new full-time employees? The primary factor, says Symons, is availability.

"If you can grow them in-house, then you're ahead of the game," he says. "Typically, contract employees are more expensive."

That's where training looms as a critical factor.

Because Mercury Insurance is moving from a Cobol-centric to a Java-centric environment, its IT professionals are being retrained, says Schueman. He adds that Mercury is also trying to provide career paths for employees to keep pace with those technological changes.

Gay says Royal Caribbean's IT organization will continue to grow staff through training, although the company will be looking at more efficient online training opportunities.

At the Tennessee Valley Authority in Chattanooga, the nation's largest public power supplier, retraining is a cornerstone of its human resources strategy, says Diane J. Bunch, senior vice president of information services. She says her training priorities for this year are security, Web-enablement and project management.

Communicate About Changes

A tough economic climate can inflict pain on many organizations. If ignored, that pain can spread to the point where it affects even the most content workers. That's why some IT managers continue to stress the importance of treating people fairly and with candor and honesty.

At Royal Caribbean, morale after its IT layoffs in late 2001 was "abysmal," Gay says. But CIO Tom Murphy gave an impassioned speech and vowed to stay with his staffers during the changes they were facing. That, plus ongoing communication with the staff, helped boost morale, he says.

And despite the recession, IT management scored high in a survey of staffers, Gay says. But rather than being complacent, he adds, Royal Caribbean managers want to build on that momentum.

When Providian's IT staff was told about the organizational changes that would result in layoffs, "we overcommunicated to [them about] why this was being done," Thomas recalls. "That made all the difference in the world" and kept them focused on their work, he says. And because those who lost their jobs were treated with respect and given good severance packages, he adds, that also had a positive effect on those who were left, though "it didn't mean it was easy."

Little things like those go a long way for IT leaders like Thomas. "IT people are different from everybody else," he says. Being able to focus on important, interesting work that can help advance their careers is often more important than money, he notes.

And something quite simple is just as important: "We say thank you when [they] do good work," Thomas says, "and that's the most important thing you can do that [acts as a] magic wand for IT people."

Saia is a freelance editor and writer in Shrewsbury, Mass. Contact him at ricksaia@townisp.com.

WHO MOVED MY IT JOB?

Two key forces are fueling a perceptible shift in IT jobs, as IT-savvy business users pick up more of the work that used to be done strictly by IT workers.

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CTO at Allstate Insurance

DAVID JOEL

CATHY BRUNE REMEMBERS planning a retirement party for a 26-year IT veteran several years ago, before she became chief technology officer at Allstate Insurance Co. She also recalls her surprise when she discovered that he wasn't an employee of Allstate; he was a contractor.

In those days, Brune says, it was hard to tell an employee from a vendor contractor without a program. Allstate had quite a few vendors, and she knew that managing them all drained staff time and energy away from focusing on the really strategic vendors. She needed to get vendor management under control.

Since then, Brune has pared the consulting cadre at the Northbrook, Ill.-based insurer from 50 firms to five strategic partners. She has formalized Allstate's supplier program, developed a vendor management process and learned to trust her procurement people.

"We've learned a company our size has to have a very formalized program, or we'll spend way too much time with suppliers, and it may not be around the things that are very strategic to us," she says.

Today's IT leaders juggle many dozens of vendors, from commodity to strategic, products to services, internal to outsourced. Managing that portfolio is a new core competency in IT, often more akin to general contracting than technology. No wonder vendor management tops many IT to-do lists for 2003.

Premier 100 IT leaders are tightening up how they deal with vendors, separating strategic partners from commodity suppliers, and improving policies, processes and controls. And many are finding partners to help. They are learning to share responsibility for vendor selection, contract negotiations, vendor policies and procedures, and even vendor relationship management.

HOW WILL YOU

Manage Y Vendors?

Your

IT vendor management is a new core competency requiring new skills and partnerships. Here's how Premier 100 IT Leaders will meet the challenge.
By Kathleen Melymuka

Form Vendor Selection Teams

It all starts with the business users, who need to be taken seriously as procurement partners, Brune says. In the past, her IT group might have pushed hard for a technology that delivered 80% of the functions the business people needed and was cheaper and easier to integrate than other options. But Brune says she has learned to listen more carefully. "Many times, that 20% is what will give them a real competitive edge," she explains. "Sometimes we missed that."

This business/IT partnership is more important than ever, because vendors today are likely to pitch directly to business users. Without a strong partnership, IT could be the last to know about technology purchase plans. "The power in an enterprise to select a technology is shifting from IT to the business unit," says George Lin, CIO at Documentum Inc., a Pleasanton, Calif.-based maker of enterprise content management software that often approaches users first.

The best approach to vendor selectioo is one that includes partners across the company, says Bart Perkins, a founder of Leverage Partners Inc., a consulting firm in Louisville, Ky., that specializes in vendor management. Perkins, a *Computerworld* columnist, suggests that the vendor selection team should include representatives of legal, training, human resources, procurement, technical architecture, finance, and infrastructure or application development areas, as well as business users.

Let Deal-Makers Negotiate

"We partner with our internal procurement function when it comes to negotiating," says Marty Chuck, vice president and CIO at Agilent Technologies Inc., a maker of communications, electronics and life sciences products in Palo Alto, Calif. "The procurement specialists work on big deals every day. They can look across the company globally and see additional opportunities for negotiating leverage."

At Allstate, procurement partners are aligned with each strategic vendor, so procurement and IT are at the table together from the start in any new product discussion. Later, when it comes time to negotiate the details, procurement takes charge. "I feel very comfortable handing that off," Brune says. "I know it will be a good deal and a great contract. Building that trust has added a few years to my life."

But be careful, cautions Eileen Birge, an analyst who specializes in vendor management at The Concours Group in Kingwood, Texas. "I've seen examples where procurement has had heavy control, and it's almost always been disastrous," she says.

Birge says procurement groups are great at very specific tasks, such as delivery of bulk chemicals. But if such groups don't understand total cost of ownership and make a deal for desktop hardware based on the cheapest price tag, it could result in major problems. Or they may not understand that a more expensive outsourcer's database administrator is 10 times more productive than a cheaper competitor's, for example, because judging technical skills isn't part of the procurement job description.

Procurement has much to teach IT and should be oo the team, Birge concludes. "But IT can't throw specs over the wall as users used to do," she says. "IT has to have the lead role in talking about IT vendor services."

When venturing into complex territory such as outsourcing, don't hesitate to enlist help from outside the company as well, Chuck says. "There are consultants that specialize in the sourcing process that can help you and the supplier reach a mutually beneficial deal," he explains. "Their experience with previous engagements and independent benchmarking and negotiation can provide valuable advice with all phases of the procurement cycle."

Share Vendor Management Duties

At Coast Capital Savings, a financial institution in Vancouver, British Columbia, once the vendor is chosen, other internal partnerships kick in. The senior business people or business project managers who use the technology manage the vendor. "They are front and center in that relationship," says CIO Joel J. Rosenberg.

At Allstate, Brune or one of her directors personally handles strategic IT vendors, such as infrastructure or hardware suppliers with whom the company spends $10 million or more. But for other suppliers, business division heads or project managers take the lead.

Regardless of who manages the vendor, the relationship should go more smoothly with very specific vendor policies and procedures in place. At J.D. Edwards & Co. in Denver, an interdepartmental group that included the IT, human resources, legal and purchasing departments developed policies controlling vendor access to buildings and systems, says Senior Vice President and CIO Mark Endry, a 2002 Premier 100 leader.

Sharing vendor management duties with partners around the company doesn't mean abdicating your responsibility, but it does mean that your responsibilities will change. As you hammer out the details and shared responsibilities of vendor management, remember that the key partnership — the one with the vendor — is determined by the contract.

"You have to put the stuff that really matters in contracts," Brune says. "After a few battles, I've learned that the people in here working from the vendors are great human beings, but their lawyers may not be quite there yet, so it's better to be covered."

Melymuka is a Computerworld *contributing writer. Contact her at kmelymuka@earthlink.net.*

Your

IT vendor management is a new core competency requiring new skills and partnerships. Here's how Premier 100 IT Leaders will meet the challenge.

By Kathleen Melymuka

Form Vendor Selection Teams

It all starts with the business users, who need to be taken seriously as procurement partners, Brune says. In the past, her IT group might have pushed hard for a technology that delivered 80% of the functions the business people needed and was cheaper and easier to integrate than other options. But Brune says she has learned to listen more carefully. "Many times, that 20% is what will give them a real competitive edge," she explains. "Sometimes we missed that."

This business/IT partnership is more important than ever, because vendors today are likely to pitch directly to business users. Without a strong partnership, IT could be the last to know about technology purchase plans. "The power in an enterprise to select a technology is shifting from IT to the business unit," says George Lin, CIO at Documentum Inc., a Pleasanton, Calif.-based maker of enterprise content management software that often approaches users first.

The best approach to vendor selection is one that includes partners across the company, says Bart Perkins, a founder of Leverage Partners Inc., a consulting firm in Louisville, Ky., that specializes in vendor management. Perkins, a *Computerworld* columnist, suggests that the vendor selection team should include representatives of legal, training, human resources, procurement, technical architecture, finance, and infrastructure or application development areas, as well as business users.

Let Deal-Makers Negotiate

"We partner with our internal procurement function when it comes to negotiating," says Marty Chuck, vice president and CIO at Agilent Technologies Inc., a maker of communications, electronics and life sciences products in Palo Alto, Calif. "The procurement specialists work on big deals every day. They can look across the company globally and see additinnal opportunities for negotiating leverage."

At Allstate, procurement partners are aligned with each strategic vendor, so procurement and IT are at the table together from the start in any new product discussion. Later, when it comes time to negotiate the details, procurement takes charge. "I feel very comfortable handing that off," Brune says. "I know it will be a good deal and a great contract. Building that trust has added a few years to my life."

But be careful, cautions Eileeo Birge, an analyst who specializes in vendor management at The Coocours Group in Kingwood, Texas. "I've seen examples where procurement has had heavy control, and it's almost always been disastrous," she says.

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HOW THEY HAVE Learned To Lead

Some of this year's Premier 100 talk about their career challenges and triumphs, and the leadership lessons they've learned along the way.

Jerry McElhatton

He steered the largest system upgrade in MasterCard's history. By Marc L. Songini

JERRY MCELHATTON IS PUTTING the finishing touches on what could be called the magnum opus of his career — a five-year, $160 million upgrade of MasterCard International Inc.'s global processing system, which is now unified on a single messaging standard.

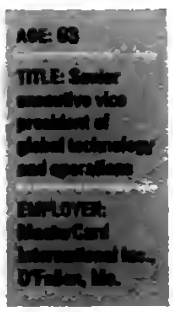
McElhatton, senior executive vice president of global technology and operations at the company in O'Fallon, Mo., says the task included rewriting the core systems that handle the authorization, clearing and settlement processes for financial institutions and merchants. It was no mean feat: The systems support 15,000 customers worldwide, handle 40 million transactions per day totaling approximately $1 trillion annually and are linked to 800,000 ATMs globally.

Delivering the project on time and on budget was a colossal undertaking and a constant challenge, McElhatton says. The implementation involved changing software systems and interfaces and keeping internal users, customers and vendors on schedule. The system was made to be flexible enough so that new types of payment processes could be added on the fly while International Standards Organization service levels were maintained.

The project is now 97% complete and will wrap up in April. The revamped processing system already permits business customers to clear transactions six times daily instead of just once a day. It also allows MasterCard to consolidate transaction authorization and clearing messages. Users can customize data to meet specific business needs, and they can route transaction data to multiple business partners simultaneously. McElhatton says the project is the biggest systems-development undertaking in the company's history.

As part of the enterprise upgrade, McElhatton oversaw the opening in 2001 of a new 52-acre campus for the company's primary IT team that includes a state-of-the-art data center that was custom-designed for MasterCard. "During the move," he says, "we didn't experience even one second of downtime."

McElhatton explains his technique: "I think I pay exceptional attention to detail and give people responsibility and latitude to make decisions. In a project, you get what you inspect, not what you expect. You monitor the metrics and make sure you stay on track."


AGE: 53
TITLE: Senior executive vice president of global technology and operations
EMPLOYER: MasterCard International Inc., O'Fallon, Mo.

His work hasn't gone unnoticed by colleagues. "Jerry ensured that the project was always at the top of the priority list within his organization and throughout MasterCard," says Rob Reeg, senior vice president, MasterCard systems development. "Through his own attention to detail, [he] ensured that those of us responsible for delivering the system had the same level of commitment to the project." ▶

Joan Dunn

She led a risky storage project that paid off with lower costs and better performance. By Marc L. Songini

FOR JOAN DUNN, being out on the front lines of IT is just part of the job.

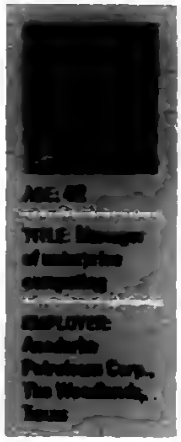
In her role as manager of enterprise computing at Anadarko Petroleum Corp. in The Woodlands, Texas, Dunn says, she's encouraged to take risks and demonstrate leadership. Witness the energy firm's willingness to create a massive infrastructure to handle the storage and modeling of 2-D and 3-D seismic data related to oil and gas exploration.

Anadarko acquires huge amounts of data for its geologists, geophysicists and engineers to interpret. The decision was made to put all that data in one central repository — a move in keeping with the company's desire to consolidate its IT infrastructure as much as possible to save money, says Dunn.

The project had its risks. It required rolling out network-attached storage (NAS) units from Network Appliance Inc. that replaced machines from various vendors. The project took approximately 20 months, and the system went live two years ago.

"At the time, the move to NAS was very risky," says Dunn. "But it paid off very well, providing improved performance and reduced administration and maintenance costs." The NAS units, along with a storage-area network built around EMC Corp. Symmetrix boxes, handle 110TB of capacity for Anadarko.

Dunn says one of the most challenging aspects of the project involved the IT staffers themselves, because they were accustomed to handling only their own types of systems — either dedicated data storage or transaction processing systems. To make the project succeed, the IT team had to work hard on communication, planning and change management, she says.



AGE: 48

TITLE: Manager of enterprise computing

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But the rewards have been great: The NAS model has become standard for the petroleum and gas industry, and Anadarko is ahead of its competitors and is already getting payback from the implementation, says Dunn.

One of the keys to success, she says, is making sure the technology is closely wedded to business strategy. "There are always more technical options out there than make sense for any company," she says. "We take business opportunities and technical opportunities and match them to be successful."

Morris Helbach, CIO at Anadarko, says Dunn's across-the-board leadership has been crucial to the firm. "An exploration and production company lives and dies by the way it acquires, manages and provides access to data," he says. Dunn's role was integral to creating the storage system, Helbach adds. ▶

Leader's Almanac

What Was Your Worst Decision?

IT leaders candidly reveal the technology decisions they wouldn't make again.

I MADE THE DECISION to deploy a debit card system that I regret. The idea was to sell a prepaid card that would carry room credits for travelers not carrying a credit card. The project required us to provide a debit card reader for every hotel. Our tests were successful. The problem was that the tests were all in North America. We didn't account for some technology complications in Europe. The lesson I learned was to widen the scope of early testing and require greater involvement from the in-country technologists.

—W. DOUGLAS LEBNS, EXECUTIVE VICE PRESIDENT, CIO, SIX CONTINENTS HOTELS INC., ATLANTA

I WOULDN'T ENDORSE the signing of an enterprise software agreement, because it binds you to all of the products the vendor supplies in the agreement — whether the products work well for you or not. This kind of agreement is supposed to be cost-effective, but it often requires a lot more effort to derive value from the investment. In the end, you may not get the technologies best suited to your needs.

—CATHY BRUNE, SENIOR VICE PRESIDENT, CHIEF TECHNOLOGY OFFICER, ALLSTATE INSURANCE CO., NORTHBROOK, ILL.

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PREMIER 100 IT LEADERS

In September 2002, Computerworld invited the public to nominate IT professionals whom they considered to be exceptional leaders. We received more than 600 nominations. Those candidates were asked to complete a survey that addressed topics such as their backgrounds, their experiences and the work environments they have created.

This list represents those who most closely matched Computerworld's definition of an IT leader. They are presented here alphabetically, with data collected in August and September 2002.

– Mari Keefe, research manager

- **RIZWAN AHMED,** 46, CIO, Louisiana Office of Group Benefits, Department of Natural Resources, Baton Rouge
- **ROBERTA AMBUR,** 49, CIO, University of South Dakota, Vermillion
- **STEVE ATTIAS,** 49, vice president, chief information security officer, New York Life Insurance Co.
- **WARREN AXELROD,** director, global information security, Pershing, Jersey City, N.J.
- **DAMIEN BEAN,** 38, vice president of corporate systems, Hilton Hotels Corp., Beverly Hills, Calif.
- **JOHN A. BIELEC,** 60, vice president, CIO, Drexel University, Philadelphia
- **ALAN BOEHME,** 43, executive vice president, CIO, Best Software Inc., Atlanta (formerly e-technology CIO at GE Power Systems, Atlanta)
- **ANDREW BRIMBERRY,** 31, director of information services, Choice Homes, Arlington, Texas
- **JOHN ANDREW BROWN,** 34, CIO, Brown Brothers Milawa Vineyard Pty., Milawa, Victoria, Australia
- **CATHY BRUNE,** 49, senior vice president, chief technology officer, Allstate Insurance Co., Northbrook, Ill.
- **DIANE J. BUNCH,** 52, senior vice president of information services, Tennessee Valley Authority, Chattanooga
- **RICHARD P. BURSEK,** 27, senior vice president, managing director, Lydian Trust Co., Palm Beach Gardens, Fla.
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Mary Odson

By promoting the power of technology, she quelled users' concerns and increased productivity. By Ellen Fanning

LAWYERS ARE KNOWN for making compelling arguments, but it's an IT leader who can make a business case based entirely on the merits of technology.

Mary Odson, CIO at Paul, Hastings, Janofsky & Walker LLP in Los Angeles, had made the decision to move the law firm to a unified messaging system tying together voice, fax and e-mail communications in a single interface. Because she had worked in IT at law firms her entire career, Odson was keenly aware of the unique technology requirements of the legal community.

"I have a strong appreciation of how attorneys use and don't use technology," says Odson. For example, they need word processing capabilities to handle the reams of legal documeots that pass through the office each day. But even more important are the client services the firm provides from its international offices. The IT department supports 2,000 users, including 850 attorneys doing business in the U.S., Asia and the U.K.

But the idea of a single repository for all communications worried some users, she says. "There was a lot of resistance to the concept from the attorneys," says Odson. "There was a concern that important voice mails would be buried in the user's in-box."

Derek Smith, a partner and chairman of the technology committee at the firm, says Odson was instrumental in overcoming that concern. "It was a matter of changing bow we do things," he says. "The IT staff educated people regarding the benefits [of the system]. Mary played an enormous role in that."

To win them over, Odson says she "leveraged one technology to sell another," promoting the strengths of the Research In Motioo Ltd. BlackBerry handheld device in order to calm fears about lost communications and show the benefits of round-the-clock, real-time dialogue with clients. Now users see pending voice-mail and fax messages on their BlackBerry devices in addition to e-mail ootifications, and Odson says one attorney has estimated that it saves him a half bour per day.

Odson began her career at a small law firm in the 1980s as a database administrator and assumed the CIO role at Paul, Hastings, Janofsky & Walker in 1999. Since then, her IT staff has grown from 42 in 1999, when all developmeot and high-level systems support was outsourced, to the current 90-person staff, which supports and develops all of the firm's systems.

Odson says her decisioo to hire highly motivated staffers who aspire to attain the top IT post she now bolds might be perceived as risky, but it's one she feels quite comfortable with. By surrounding herself with competent people, Odson explains, sbe has eosured that the IT department will remain strong into the future. ◗

■ **SCOTT L. CARCILLO,** 35, CIO, vice president of IT and services, Digex Inc., Laurel, Md.

■ **MARIO C. CARLOS,** 42, head of IT, Manila Electric Co., Pasig, Philippines

■ **RICHARD CATALANO,** 44, vice president of IT, Progress Software Corp., Bedford, Mass.

■ **DANIEL J. CAVANAGH,** 62, executive vice president, operations and technology, Metropolitan Life Insurance Co., New York

■ **SUCHINDRAN S. CHATTERJEE,**

51, chairman, CIO, Cum Laude Academy of Learning, Scottsdale, Ariz. (formerly CIO at Salt River Pima-Maricopa Indian Community, Scottsdale)

■ **MIKE CHILDRESS,** 36, senior vice president of development, Delta Technology Inc., Atlanta

■ **MARTY CHUCK,** 42, CIO, Agilent Technologies Inc., Santa Clara, Calif.

■ **MARTY COLE,** 46, global managing partner, outsourcing and infrastructure delivery, Accenture Ltd., Hartford, Conn.

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Advertisement

IT Accountability Requirements on the Rise

Can You Answer the Tough Questions?

By Dean J. Hager

Could you answer these questions quickly and accurately?

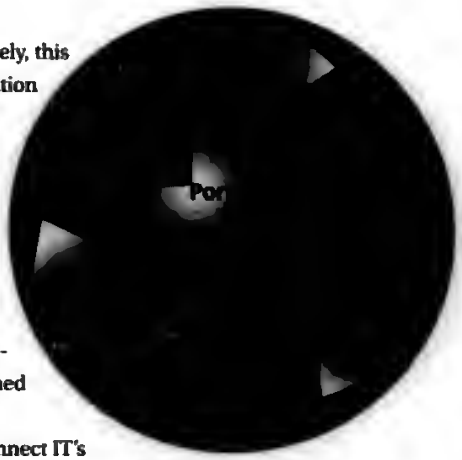
- What were your 10 largest IT projects last quarter based on total cost?
- What is the ROI for each of those projects?
- How are your resources deployed and what is their utilization?
- What's in your project portfolio and how would a new high-potential project affect the mix?

If you could, you would be in the minority. Surprisingly few senior IT executives are able to easily demonstrate the level of accountability that CEOs and CFOs expect in today's tough business environment.

Robert Frances Group analyst Maria DeGiglio noted in a recent report that IT budgets and projects are under greater scrutiny from business unit executives after so many IT projects over the last decade fell short of their promised benefits. "Multiple surveys indicate that less than 30 percent of U.S. corporations that executed IT projects were successful, while the majority of projects were cancelled before implementation, late, or over budget," she said.

Fortunately, a new concept called "Service Process Optimization" has emerged to help IT executives set project priorities while at the same time helping the IT staff complete those projects on time and under budget.

SPO works because it streamlines all stages of the work process, from demand management to delivery management to financial management. It helps manage work requests, estimate costs better, assign the right people to projects, manage them effectively and then manage the costs of those projects, including chargebacks.



If integrated effectively, this critical process information can feed into portfolio and performance management systems to enable CIOs to answer the tough questions. How do I strategically manage a budget cut? How do I prioritize projects given my constrained human and financial resources? How do I connect IT's priorities with those of the overall enterprise?

If these are the daunting questions you want to be able to answer, the time may be right for effective portfolio management through SPO.

To obtain a complementary META Group report on Portfolio Management and learn about how Lawson can help with SPO, visit us at www.lawson.com/mwp3.

Dean J. Hager is executive vice president for Service Process Optimization at Lawson Software. He is responsible for corporate-wide product strategy, development and marketing. In addition, Hager is responsible for the SPO market, including sales, services, marketing, alliances and product strategy and execution

Lawson SPO Solution's Bottom-Line Impact

Lawson's Service Process Optimization solution helps IT organizations lower and stabilize costs to achieve a greater, more rapid ROI. In addition, Lawson improves your responsiveness by automating work request submission, approval, delegation and status reporting.

Components of Lawson's SPO solution can be implemented individually or comprehensively for end-to-end management of IT projects.

Portfolio Management is integrated with Services Automation to help IT decision-makers determine which IT initiatives will deliver the greatest ROI while also enabling you to evaluate risk.

Services Automation provides a broad range of capabilities for demand, delivery and financial management and integrates with back-office systems. Services Automation improves forecasting and helps match the demands on your IT organization to the supply of internal and external resources, allowing you to more effectively meet your service level commitments.

Enterprise Performance Management combines analytics with Lawson's Smart Notification technology. The analytics functionality enables the executive team to evaluate resource capacity and IT costs in real time. Smart Notification allows the enterprise to define critical information thresholds and then push information to those who need it, using email, PDA, fax or phone.

Enterprise Knowledge Management makes it easy to share crucial information across the organization. It provides the ability to drill from transactional data through to the unstructured information, such as emails and plans, that provides the critical context for fast, effective decision-making.

To learn more about Lawson's SPO solution, contact us at 1-800-477-1357.

LAWSON™

Leader's Almanac

What Was Your Worst Decision?

Continued from page 35

IN EARLY-ADOPTER MODE, we piloted thin-client hardware and software four years ago, thinking the thin-client model had the potential for significant operational and financial benefits. During the pilot, it became obvious that some elements of the thin-client technology were stable, but some weren't. After a rather lengthy pilot effort involving many users, we concluded that the technology wasn't ready for deployment in our environment. In retrospect, I would have begun with a smaller-scale test with less investment and less potential user disruption. I now try to tailor pilot projects to minimize upfront resource commitments or scale our investment.

■ **JOAN BUNN, MANAGER OF ENTERPRISE COMPUTING, ANADARKO PETROLEUM CORP., THE WOODLANDS, TEXAS**

ONE TIME I WORKED on the implementation of a new installment loan system for a large financial institution. The technology group worked with the user department to identify business requirements, but once the system was installed, they didn't use the new features. Instead, the new system was modified to perform the exact functions like the old system. The moral to that story is that when technology causes major changes, you have to work to change the culture so your business unit colleagues can leverage technology to achieve business benefit.

■ **JERRY McELHATTON, SENIOR EXECUTIVE VICE PRESIDENT OF GLOBAL TECHNOLOGY AND OPERATIONS, MASTERCARD INTERNATIONAL INC., O'FALLON, MO.**

Continued on page 38

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LAWYERS ARE KNOWN for making compelling arguments, but it's an IT leader who can make a business case based entirely on the merits of technology.

Mary Odson, CIO at Paul, Hastings, Janofsky & Walker LLP in Los Angeles, had made the decision to move the law firm to a unified messaging system tying together voice, fax and e-mail communications in a single interface. Because she had worked in IT at law firms her entire career, Odson was keenly aware of the unique technology requirements of the legal community.

"I have a strong appreciation of how attorneys use and don't use technology," says Odson. For example, they need word processing capabilities to handle the reams of legal documents that pass through the office each day. But even more important are the client services the firm provides from its international offices. The IT department supports 2,000 users, including 850 attorneys doing business in the U.S., Asia and the U.K.

But the idea of a single repository for all communications worried some users, she says. "There was a lot of resistance to the concept from the attorneys," says Odson. "There was a concern that important voice mails would be buried in the user's in-box."

Derek Smith, a partner and chairman of the technology committee at the firm, says Odson was instrumental in overcoming that concern. "It was a matter of changing how we do things," he says. "The IT staff educated people regarding the benefits [of the system]. Mary played an enormous role in that."

To win them over, Odson says she "leveraged one technology to sell another," promoting the strengths of the Research In Motion Ltd. BlackBerry handheld device in order to calm fears about lost communications and show the benefits of round-the-clock, real-time dialogue with clients. Now users see pending voice-mail and fax messages on their BlackBerry devices in addition to e-mail notifications, and Odson says one attorney has estimated that it saves him a half hour per day.

AGE: 38

TITLE: CIO

EMPLOYER: Paul, Hastings, Janofsky & Walker LLP, Los Angeles

Odson began her career at a small law firm in the 1980s as a database administrator and assumed the CIO role at Paul, Hastings, Janofsky & Walker in 1999. Since then, her IT staff has grown from 42 in 1999, when all development and high-level systems support was outsourced, to the current 90-person staff, which supports and develops all of the firm's systems.

Odson says her decision to hire highly motivated staffers who aspire to attain the top IT post she now holds might be perceived as risky, but it's one she feels quite comfortable with. By surrounding herself with competent people, Odson explains, she has ensured that the IT department will remain strong into the future. ◗

■ **SCOTT L. CARCILLO,** 35, CIO, vice president of IT and services, Digex Inc., Laurel, Md.

■ **MARIO C. CARLOS,** 42, head of IT, Manila Electric Co., Pasig, Philippines

■ **RICHARD CATALANO,** 44, vice president of IT, Progress Software Corp., Bedford, Mass.

■ **DANIEL J. CAVANAGH,** 62, executive vice president, operations and technology, Metropolitan Life Insurance Co., New York

■ **SUCHINDRAN S. CHATTERJEE,** 51, chairman, CIO, Cum Laude Academy of Learning, Scottsdale, Ariz. (formerly CIO at Salt River Pima-Maricopa Indian Community, Scottsdale)

■ **MIKE CHILDRESS,** 36, senior vice president of development, Delta Technology Inc., Atlanta

■ **MARTY CHUCK,** 42, CIO, Agilent Technologies Inc., Santa Clara, Calif.

■ **MARTY COLE,** 46, global managing partner, outsourcing and infrastructure delivery, Accenture Ltd., Hartford, Conn.

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Advertisement

IT Accountability Requirements on the Rise

Can You Answer the Tough Questions?

By Dean J. Hager

Could you answer these questions quickly and accurately?

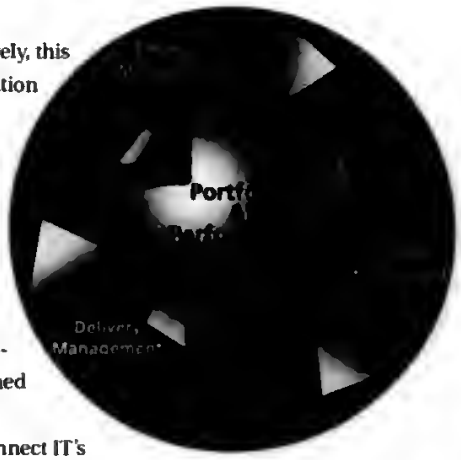
- What were your 10 largest IT projects last quarter based on total cost?
- What is the ROI for each of those projects?
- How are your resources deployed and what is their utilization?
- What's in your project portfolio and how would a new high-potential project affect the mix?

If you could, you would be in the minority. Surprisingly few senior IT executives are able to easily demonstrate the level of accountability that CEOs and CFOs expect in today's tough business environment.

Robert Frances Group analyst Maria DeGiglio noted in a recent report that IT budgets and projects are under greater scrutiny from business unit executives after so many IT projects over the last decade fell short of their promised benefits. "Multiple surveys indicate that less than 30 percent of U.S. corporations that executed IT projects were successful, while the majority of projects were cancelled before implementation, late, or over budget," she said.

Fortunately, a new concept called "Service Process Optimization" has emerged to help IT executives set project priorities while at the same time helping the IT staff complete those projects on time and under budget.

SPO works because it streamlines all stages of the work process, from demand management to delivery management to financial management. It helps manage work requests, estimate costs better, assign the right people to projects, manage them effectively and then manage the costs of those projects, including chargebacks.



If integrated effectively, this critical process information can feed into portfolio and performance management systems to enable CIOs to answer the tough questions. How do I strategically manage a budget cut? How do I prioritize projects given my constrained human and financial resources? How do I connect IT's priorities with those of the overall enterprise?

If these are the daunting questions you want to be able to answer, the time may be right for effective portfolio management through SPO.

To obtain a complementary META Group report on Portfolio Management and learn about how Lawson can help with SPO, visit us at www.lawson.com/mwp3.

Dean J. Hager is executive vice president for Service Process Optimization at Lawson Software. He is responsible for corporate-wide product strategy, development and marketing. In addition, Hager is responsible for the SPO market, including sales, services, marketing, alliances and product strategy and execution.

Lawson SPO Solution's Bottom-Line Impact

Lawson's Service Process Optimization solution helps IT organizations lower and stabilize costs to achieve a greater, more rapid ROI. In addition, Lawson improves your responsiveness by automating work request submission, approval, delegation and status reporting.

Components of Lawson's SPO solution can be implemented individually or comprehensively for end-to-end management of IT projects.

Portfolio Management is integrated with Services Automation to help IT decision-makers determine which IT initiatives will deliver the greatest ROI while also enabling you to evaluate risk.

Services Automation provides a broad range of capabilities for demand, delivery and financial management and integrates with back-office systems. Services Automation improves forecasting and helps match the demands on your IT organization to the supply of internal and external resources, allowing you to more effectively meet your service level commitments.

Enterprise Performance Management combines analytics with Lawson's Smart Notification technology. The analytics functionality enables the executive team to evaluate resource capacity and IT costs in real time. Smart Notification allows the enterprise to define critical information thresholds and then push information to those who need it, using email, PDA, fax or phone.

Enterprise Knowledge Management makes it easy to share crucial information across the organization. It provides the ability to drill from transactional data through to the unstructured information, such as emails and plans, that provides the critical context for fast, effective decision-making.

To learn more about Lawson's SPO solution, contact us at 1-800-477-1357.

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Leader's Almanac

What Was Your Worst Decision?

Continued from page 36

MANY YEARS AGO in another company, I awarded a multimillion-dollar contract to an outside service to operate and manage my data center. I thought I hadn't given up any control, but I learned that I had outsourced my lifeblood. The experience taught me that managing my own IT resources enables me to assimilate advances in technology better than those companies that go to an outsourcer or ASP. Without a place to stand in the organization, IT loses its value.

■ ERIC GOLOFARB, EXECUTIVE VICE PRESIDENT, CIO, PRO-SCHULTZ INC., ATLANTA

OUR INITIAL ENTRY INTO imaging of paper documents was premature. I found technology that we could afford, but the systems were disparate and unable to smoothly integrate. The various vendors couldn't effectively communicate and were unwilling to truly partner for the customer's benefit. If I were faced with the same decision in that same time frame, I would postpone the purchase until a more mature product was available for our use.

■ NORMAN A. THOMAS, SENIOR VICE PRESIDENT, CHIEF TECHNOLOGY OFFICER, U.S. XPRESS ENTERPRISES INC., CHATTANOOGA, TENN.

WE CHOSE TO IMPLEMENT videoconferencing, which was supposed to save on the travel budget. We elected to keep costs low by using our existing network and not Primary Rate Interface or outside services. This proved to be more trouble than we anticipated, and although we eventually made it work well, I wouldn't go this route again.

■ JOSEPH A. PUGLISI, GROUP CIO, EMCOR GROUP INC., NORWALK, CONN.

Continued on page 40

Robert Galletta

He finds the hidden benefits of each project at the Federal Reserve Bank of New York. By Lucas Mearian

WHILE ANY IT PROJECT has its challenges, leading an initiative you don't believe in can be anguishing for the best of managers. But as Robert Galletta has learned, if you look hard enough, you can find a silver lining in what you might think is the worst of technology projects.

"Working as a project director or working on anything I don't fully believe in is the single biggest challenge I face," says Galletta, a staff director at the Federal Reserve Bank of New York. "I can't fake it. I have to find one aspect of an initiative to believe in."

Galletta was once asked to lead an effort to move from a technology platform he helped build and implement that had added a tremendous amount of value to the corporation. He says he felt that it still had a great deal of value left in it.

The new technology, Galletta says, "was clearly not as robust and had little immediate promise for enhancement." On top of that, his staff would have to be retrained to use it.

"After a frustrating few months of trying to find some value in it . . . I realized it was a no-win situation. So I focused on the fact that the implementation would allow my staff to enhance their careers by being a part of this strategic initiative within this organization," he says.

Melanie Heintz, also a staff director at the Federal Reserve Bank, says Galletta taught her that same glass-half-full leadership style.

"What's unique about him is he has this way of managing people based on their abilities, but at the same time treating everybody the same. There's no variance there," Heintz says.

It was another frustrating situation in Galletta's career that led him to form the Storage Management Council of New York last April, joining forces with the New York Software Industry Association in order to gather IT decision-makers and storage vendor executives in a forum setting.

AGE: 36

TITLE: Staff director

EMPLOYER: Federal Reserve Bank of New York

About five years ago, when storage-area networks were in their infancy, Galletta says, he was looking to consolidate his infrastructure but found that storage vendors didn't want to acknowledge that certain applications — namely Novell Inc.'s NetWare operating system — needed to interoperate with the storage systems.

"I didn't like how storage vendors didn't like to listen. I would write the agenda before the meeting, about what I'd like to talk to them about, and they'd come in and be appalled by it," Galletta says, adding, "Who's the customer?" The Storage Management Council now hosts conferences and produces a newsletter on storage issues.

"That's the kind of thing I do. I get involved, whether it's an internal issue or an industry issue," Galletta says. ▶

■ **RICK DEVENUTI,** corporate vice president, CIO, Microsoft Corp., Redmond, Wash.

■ **SCOTT DIETZEN,** 40, chief technology officer, BEA Systems Inc., San Jose

■ **CHRIS DUNCAN,** 40, global leader, e-communications technology, The Dow Chemical Co., Midland, Mich.

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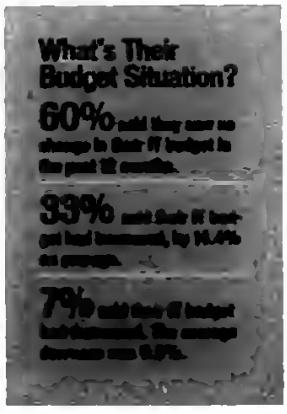
■ **ROBERT DUTILE,** 42, executive vice president of key technology services, KeyCorp, Cleveland



■ **HARRIET EDELMAN,** 46, senior vice president, CIO, Avon Products Inc., New York

■ **WILLARD S. EVANS JR.,** 46, vice president, Peoples Energy Corp., Chicago

■ **BRUCE FADEM,** 57, vice president, CIO, Wyeth, Paoli, Pa.

■ **GREGG FARRIS,** 48, vice president of IT, Oceaneering International Inc., Houston

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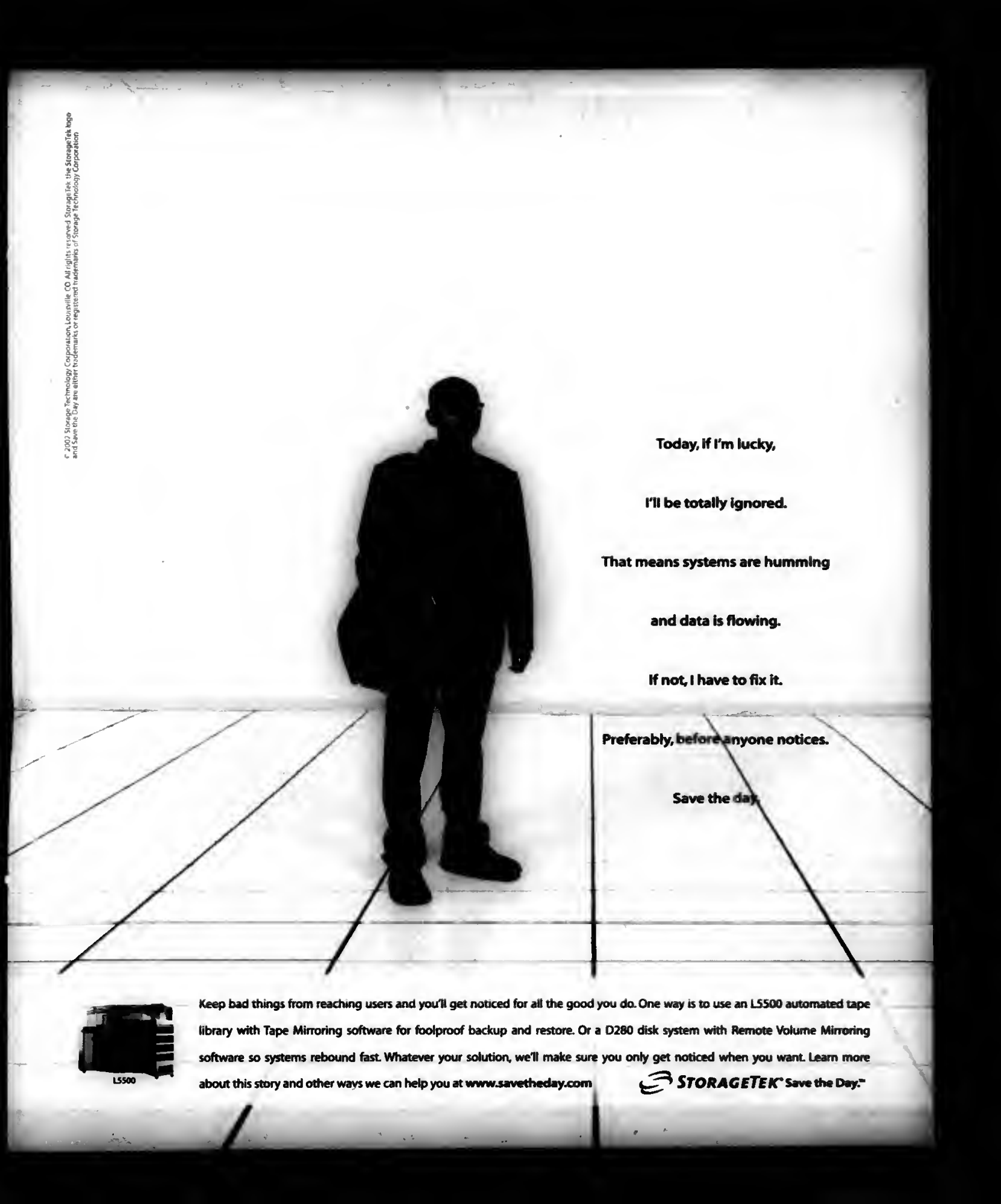

Today, if I'm lucky,

I'll be totally ignored.

That means systems are humming

and data is flowing.

If not, I have to fix it.

Preferably, before anyone notices.

Save the day.

L5500

Keep bad things from reaching users and you'll get noticed for all the good you do. One way is to use an L5500 automated tape library with Tape Mirroring software for foolproof backup and restore. Or a D280 disk system with Remote Volume Mirroring software so systems rebound fast. Whatever your solution, we'll make sure you only get noticed when you want. Learn more about this story and other ways we can help you at **www.savetheday.com**

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What Was Your Worst Decision?

Continued from page 38

I'VE LEARNED TO STAY CLEAR of in-house development of software, whenever possible. While in-house development can often result in a system that's customized to the needs of the operation, the long-run costs and limitations often outweigh the short-run gains. This includes custom modifications to ERP systems that aren't strongly supported by a business case but are done out of habit or personal preference.

■ **DAVID SWARTZ, CIO, GEORGE WASHINGTON UNIVERSITY, WASHINGTON**

AT MY PREVIOUS EMPLOYER, before my IT organization was fully up to speed, a business unit cut a deal with a vendor for collaboration software. This was during the Web's heyday. After a quick review and lots of pressure from the business unit, we in IT blessed the initial product based on the vendor's commitment to move to a J2EE-compliant platform within 12 months. Twelve months later, 24 months later, 36 months later, the vendor still hadn't completed its work, and they were facing serious financial pressures. So we were looking at trying to support undocumented code for an application that saved the company $12 million to $15 million annually. Looking back, I would have pushed back harder on the business and — although I'll continue to use small vendors to push forward with leading-edge technology — I will never again trust a small vendor without obtaining access to their source code and complete documentation upfront.

■ **ALAN BERNIE, EXECUTIVE VICE PRESIDENT, CIO, BEST SOFTWARE INC., ATLANTA**

Compiled and edited by Mitch Betts, Knowledge Center director.

Patricia Graham

Using her power of persuasion, she won cooperation for a data standards project. By Jean Consilvio

PATRICIA GRAHAM KNOWS that the most effective way to sell a project is to form relationships with end users and explain what's in it for them.

As director of information systems at Prudential Financial in Roseland, N.J., Graham's latest challenge is pitching the strategic benefits of data modeling, XML support and metadata management to the 80 or so business units that she and her department of 16 people support.

"I'm always in a selling mode. Sometimes I feel like I'm the Willy Loman of IT," she says. Over the past two years, Graham has been convincing business units of the time savings and quality improvements that can be gained from using industry and XML standards.

"Her strength is making them aware of all the things they can gain holistically," says Curtis Mitchell, vice president of IS and Graham's boss. "She provides a lot of feedback and information that they don't already have."

For example, Graham's role in a metadata management project might be to make sure that all life insurance data is available to business units and to foster communication between business and systems groups by providing a more precise and business-friendly language.

The ultimate goal is to free the business units so they can spend more time running the business and serving customers and less time deciphering technical specifications or reports.

During her 19 years at Prudential — the past 12 in data architecture — Graham has used her innate talent as part marketer, part social worker to win the cooperation of developers, project managers and analysts. And that has been a difficult task at times, as business units must now pay for her department's IT services by the project.

"It's hard for people to see the business value of a data architect project right away," Graham says. "They could be working on the next project before realizing the benefits from the first one." And Graham knows firsthand the expense of not building to standard. Without a blueprint to guide design and development, the project team could start to see incorrect information, increased maintenance costs and the same data analysis repeated over and over, she says.

AGE: 53

TITLE: Director of IS

EMPLOYER: Prudential Financial, Roseland, N.J.

"The criticism that the creation of data models and metadata directories are bottlenecks or unnecessary overhead quickly dissipate when key people on project teams start to see the benefit in adhering to standards," she says.

Graham recently demonstrated the return on investment from a project when, after building an XML interface with an outside company, she was able to send the interface and data exchange to a second customer — without additional development work.

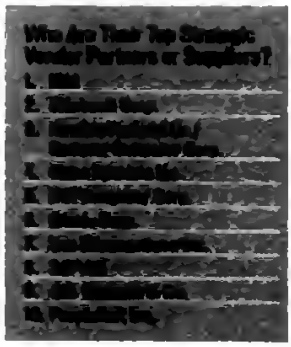
"When you work in data architecture, it's just a series of challenges you have to get through," says Graham. ◗

■ **CHARLES D. FLETCHER JR.,** 55, assistant provost for technology and IS, CIO, Delaware State University, Dover

■ **ROBERT GALLETTA,** 36, staff director, Federal Reserve Bank of New York

■ **JAY GARDNER,** 46, CIO, BMC Software Inc., Houston

■ **DANIEL W. GARROW,** 52, senior vice president of IS, CIO, Mohegan Sun Casino, Uncasville, Conn.



■ **BERNARD GAY,** 34, vice president of enterprise technology and operations, Royal Caribbean Cruises Ltd., Miami

■ **JAMES D. GIBSON,** 43, director of IT, TriWest Healthcare Alliance, Phoenix

■ **RICHARD GIUS,** 45, senior vice president of IT, Cardinal Health Inc., McGaw Park, Ill.

■ **RON GLICKMAN,** 43, senior vice president, CIO, DFS Group Ltd., San Francisco

CONTINUED ON PAGE 42

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CONTINUED ON PAGE 42

It may also be news to you that VeriSign handles e-commerce payments for some 80,000 different businesses and protects more than 400,000 websites. You see, VeriSign has spent the last seven years building a secure infrastructure for the Internet. We'd like to do the same for your business. VeriSign can help you deploy a trusted infrastructure so you can conduct secure communications and transactions. So no matter how many e-commerce payments your company handles, you'll know every last one of them is secure.

Learn all you need to know about infrastructure security – and how VeriSign's managed network and security solutions can help you – by downloading our new white paper: Cyber Security in the Age of Action. Visit www.verisign.com/security

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Leader's Almanac

What Was Your First Job in IT?

Premier 100 IT Leaders tell us about the jobs that launched their careers.

MY FIRST JOB IN IT was as a mainframe computer operator for a retail chain. I'll never forget the paper tape! We fed lawn bags full of this stuff into a reader, often by hand. The tape had this horrible tendency to snap. Our first inclination was to get rid of it; however, this tape contained valuable information from cash registers, and we needed to make sure that all the stores were accounted for. So out came the scissors, tape, glue and small carving knife. To this day, I get a little anxious when I see a lawn bag!
■ **RICHARD CATALANO, VICE PRESIDENT OF IT, PROGRESS SOFTWARE CORP., BEDFORD, MASS.**

MY FIRST JOB WAS at a data center for a bank in 1979. I was the graveyard supervisor of the product distribution unit. This group microfilmed financial printouts produced during the nightly batch cycle and prepared them for distribution to the branch locations. Initially, it was simply a job to pay my way through postgraduate studies. I had no idea that I would look back on this as the first job in a career.
■ **STEVE SCOTT, VICE PRESIDENT OF INFORMATION SYSTEMS DIVISION, VISION SERVICE PLAN, RANCHO CORDOVA, CALIF.**

I WAS A PROGRAMMER in a research and design area of Chemical Bank, developing a novel ATM with interactive video, touch screen and proximity detector. This required device-level coding and interaction with emerging technologies. We also contracted with a military hardware de-

Continued on page 44

John Andrew Brown

He drew on the skills of a cross-departmental team to refurbish a vineyard's ERP system.

By Linda Rosencrance

A **SUCCESSFUL VINEYARD** owner must have the skills to harvest the best grapes, employ the most talented winemakers and sell customers on the product.

When John Andrew Brown took over as CIO at Brown Brothers Milawa Vineyard Pty. in 1997, one of his first tasks drew on similar skills. The Australian company, founded in 1889 in Milawa, Victoria, had outgrown its legacy enterprise resource planning (ERP) system, which had been designed specifically for the wine industry.

The goal was to move the vineyard's supply chain onto a more flexible platform to ensure excellent customer service, offer back-office functionality and communicate with existing and future systems, says Brown, who is a fourth-generation employee of the family-owned business.

His first challenge was to select an implementation team made up of key people from various departments, including IT, marketing, operations and finance.

The next challenge unfolded over the ensuing six months, as Brown's team presented its plans to all of the knowledge workers in the company, explaining that implementing a new ERP system was a business decision and not just an IT decision.

"We said that although we didn't know what the new system would look like, things were going to change, and we asked them to come along for the ride. We had a pretty good acceptance rate," says Brown, who headed up the leadership team. Brown and his team explained that the winemaker had to get rid of the risk and stagnation inherent in its legacy ERP system and invest in one that would allow the vineyard to become much more efficient.

After conducting a lot of research, Brown Brothers chose Denver-based J.D. Edwards & Co.'s OneWorld ERP package, running on an IBM Netfinity server. Implementation of the new system began early in 1999, and the financial component went live in July 1999. The distribution model was implemented that October.

The new system allowed the winemaker to cut the time it took to process credit card orders by 80%, improved collections and consolidated budget information. The project also put Brown's management abilities to the test. Along the way, Brown says, he learned that leadership means providing the right framework for your people to do great things.

"I believe that a significant part of the leadership role is simply to get the environment right so my people can do what they do," he says. "However, when a leader makes a decision, it must be respected and adopted by all, regardless of their opinions, because that is part of the leader's role in the team."

Brown's boss, general manager Roland Wahlquist, says he has proved to be a very effective CIO for the vineyard, guiding it through a complete upgrade of its IT systems in just five years.

"He and his team have been very successful at striking the right balance between affordable systems and laying the foundations for growth with a long-term solution," Wahlquist says. "He has been able to clearly articulate to senior management his proposed solutions and gain their support."

AGE: 34

TITLE: CIO

EMPLOYER: Brown Brothers Milawa Vineyard Pty., Milawa, Victoria, Australia

■ **ERIC GOLDFARB,** 38, executive vice president, CIO, PRG-Schultz Inc., Atlanta (formerly CIO at Global Knowledge, Cary, N.C.)

■ **ROBB GOOD,** 38, vice president, director of IS, Sundt Construction Inc., San Diego

■ **SUZANNE GORDON,** 49, vice president of IT, SAS Institute Inc., Cary, N.C.

■ **PATRICIA GRAHAM,** 53, director of information systems, Prudential Financial, Roseland, N.J.

■ **DAVID R. GUZMAN,** 46, senior vice president, CIO, Owens & Minor Inc., Glen Allen, Va.

■ **DR. JOHN HALAMKA,** 40, CIO, CareGroup Healthcare System, and associate dean for educational technology, Harvard Medical School, Boston

■ **ROBERT HARLAN,** 37, director, Motorola Inc., Northbrook, Ill.

■ **JONATHAN HARWOOD,** 43, CIO, founder, OpenReach Inc., Woburn, Mass.

■ **NEIL A. HASTIE,** 54, CIO, senior vice president of e-business and retail systems, TruServ Corp., Chicago

■ **CLAUS HOHMANN,** 57, chief technology officer, Volkswagen AG, Wolfsburg, Germany

CONTINUED ON PAGE 44

John Andrew Brown

He drew on the skills of a cross-departmental team to refurbish a vineyard's ERP system.

By Linda Rosencrance

A SUCCESSFUL VINEYARD owner must have the skills to harvest the best grapes, employ the most talented winemakers and sell customers on the product.

When John Andrew Brown took over as CIO at Brown Brothers Milawa Vineyard Pty. in 1997, one of his first tasks drew on similar skills. The Australian company, founded in 1889 in Milawa, Victoria, had outgrown its legacy enterprise resource planning (ERP) system, which had been designed specifically for the wine industry.

The goal was to move the vineyard's supply chain onto a more flexible platform to ensure excellent customer service, offer back-office functionality and communicate with existing and future systems, says Brown, who is a fourth-generation employee of the family-owned business.

His first challenge was to select an implementation team made up of key people from various departments, including IT, marketing, operations and finance.

The next challenge unfolded over the ensuing six months, as Brown's team presented its plans to all of the knowledge workers in the company, explaining that implementing a new ERP system was a business decision and not just an IT decision.

"We said that although we didn't know what the new system would look like, things were going to change, and we asked them to come along for the ride. We had a pretty good acceptance rate," says Brown, who headed up the leadership team. Brown and his team explained that the winemaker had to get rid of the risk and stagnation inherent in its legacy ERP system and invest in one that would allow the vineyard to become much more efficient.

After conducting a lot of research, Brown Brothers chose Denver-based J.D. Edwards & Co.'s OneWorld ERP package, running on an IBM Netfinity server. Implementation of the new system began early in 1999, and the financial component went live in July 1999. The distribution model was implemented that October.

The new system allowed the winemaker to cut the time it took to process credit card orders by 80%, improved collections and consolidated budget information. The project also put Brown's management abilities to the test. Along the way, Brown says, he learned that leadership means providing the right framework for your people to do great things.

"I believe that a significant part of the leadership role is simply to get the environment right so my people can do what they do," he says. "However, when a leader makes a decision, it must be respected and adopted by all, regardless of their opinions, because that is part of the leader's role in the team."

Brown's boss, general manager Roland Wahlquist, says he has proved to be a very effective CIO for the vineyard, guiding it through a complete upgrade of its IT systems in just five years.

"He and his team have been very successful at striking the right balance between affordable systems and laying the foundations for growth with a long-term solution," Wahlquist says. "He has been able to clearly articulate to senior management his proposed solutions and gain their support." ▶

■ **ERIC GOLDFARB,** 38, executive vice president, CIO, PRG-Schultz Inc., Atlanta (formerly CIO at Global Knowledge, Cary, N.C.)

■ **ROSS GOOD,** 38, vice president, director of IS, Sundt Construction Inc., San Diego

■ **SUZANNE GORDON,** 49, vice president of IT, SAS Institute Inc., Cary, N.C.

■ **PATRICIA GRAHAM,** 53, director of information systems, Prudential Financial, Roseland, N.J.

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Roberta Ambur

Challenged to connect students and faculty, she orchestrated a rollout of PDAs at the University of South Dakota. By Jean Consilvio

IT WAS THE SPRING OF 2001, and Roberta Ambur, CIO at the University of South Dakota, was about to undertake a technological advancement that no other institution of higher learning had attempted: a rollout of more than 1,500 personal digital assistants (PDA) to full-time freshmen, first-year law and medical students, and faculty — without adding IT staff.

"Anytime you try something new, it's not going to go smoothly," says Ambur. One initial worry was getting each of the participants in the program to pay $250 for their Palm devices. But they did.

"In the beginning, faculty and our IT staff expressed some trepidation about managing and disseminating course materials and other academic information in a mobile environment," she says, but that concern was resolved within the first year.

One reason for the change of heart is that Ambur has moved quickly to address problems as they have arisen, says Don Dahlin, vice president for academic affairs and Ambur's boss.

"For example, one major issue was moving content so faculty members could easily get class content from the classroom onto the PDA," says Dahlin. "Roberta took the lead to find a server solution and was successful on that endeavor."

Another snag in the PDA pilot program was that students who didn't have laptops weren't able to back up their PDAs. To get around that problem, the university installed Extended Systems Inc.'s XTNDConnect Server software over the summer. The biggest challenge, says Ambur, was adding the software on top of the existing IT architecture in order to improve integration with infrared ports, PDAs and file-sharing applications. "It was and remains a very complex project, and without her leadership, we would not have moved as far and as fast as we have," Dahlin says.

Ambur was hired for the new position of CIO about a year and a half ago and directs a staff of 127, including part-timers from the student lab, Dahlin says.

Ambur and her staff support the Palm m500 and m515 devices and software that connect to the university network via cradles and infrared ports that students use to receive e-mail, turn in assignments, schedule appointments with faculty and access the Web.

Ambur considers this rollout — only one project among many — to be a big step forward for the university. "I foresee a time when you have the PDA and telephone all in one, and you're on a street corner looking up your e-mail, talking on the phone," she says. "Anytime, anywhere activity — that's what the future holds." ◗

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- **RICHARD K. JONES**, 49, managing director, CIO, Countrywide Home Loans Inc., Calabasas, Calif.
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- **JOSEPH Y. LACIK JR.**, 47, vice president of information services, Avis Services Inc., Dallas
- **LINDA LENOX**, 41, corporate support manager, The New York Times Co., Norfolk, Va.

- **EDWARD N. LEVEILLE**, 52, vice president of systems, CIO, Providence Washington Insurance Co., East Providence, R.I.
- **W. DOUGLAS LEWIS**, 49, executive vice president, CIO, Six Continents Hotels Inc., Atlanta
- **GEORGE LIN**, 32, vice president, CIO, Documentum Inc., Pleasanton, Calif.
- **JOHN A. MARSHALL**, 45, enterprise systems director, Office of Naval Intelligence, Washington
- **WILLIAM E. McCOREY JR.**, 44, vice president of MIS, Circuit City Stores Inc., Richmond, Va.

John A. Marshall

Stung by an unexpected user backlash, he learned a lesson in leadership. By Todd R. Weiss

BACK IN 1997, AS HE TOOK ON one of the biggest IT challenges of his career, John A. Marshall never imagined that the hardware and software he was about to deploy would be the least of his worries.

But that's what happened when Marshall, enterprise systems director at the Office of Naval Intelligence in Washington, decided to reconfigure the network in a way that would allow some 2,500 users to access their files from any machine, while simplifying maintenance and preparing for Y2k.

Instead of the hardware causing him grief, it was end users who did so. They had strenuous objections to his plans, and they had no qualms about sharing their displeasure with Marshall and his staff. The users saw the proposed move as a way for others to control how they used their computers.

"We wanted to treat our desktops like the telephone system," enabling users to log in anywhere to gain access to their data, says Marshall. To do that, the technical staff removed the hard drives from the machines and essentially created dumb terminals linked to centralized storage, which made data backups and systems maintenance easier.

"We took a lot of pain from our [users]," Marshall says. "[They] didn't believe in the concept of us locking down their desktops and taking away their C drives." Complaints continued throughout the project until its completion in late 1998 as part of a pre-Y2k program.

Marshall says he learned that he should have spent more time managing users' expectations so they could have clearly seen the project's payoff. "Now that they understand the benefits of it and how much we increased productivity, I think they're OK with it," he says.

The Office of Naval Intelligence supports users in the U.S. Navy who gather maritime intelligence for the armed services. More than 125 IT professionals working under Marshall support help desk and network operations as well as a wide range of technologies, including enterprise databases and application servers, and run mission-critical systems around the clock. Marshall, who served in the Navy from 1976 to 1979, has worked at the office for 26 years.

Capt. Mark Greer, CIO at the Office of Naval Intelligence, says Marshall made the project a success through his leadership. As the work began, Marshall made sure that everyone on the team understood what they were doing and why, he says. "He's able to get pretty good unity of effort," Greer says. "It's something that a lot of IT managers skip. He's a good leader, and he took the time to do that." ▶

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■ **JERRY McELHATTON**, 63, senior executive vice president of global technology and operations, MasterCard International Inc., O'Fallon, Mo.

■ **ALLAN McLAWHON**, 48, senior vice president, chief technology officer, LexisNexis, Miamisburg, Ohio

■ **STEVE MESSICK**, 48, senior vice president of technology, Business Wire, San Francisco

■ **JOHN C. MIKOS**, 43, CIO, Baxter International Inc., Deerfield, Ill.

■ **MARY ODDEN**, 38, CIO, Paul, Hastings, Janofsky & Walker LLP, Los Angeles

■ **ROBERT L. OTTO**, 50, vice president of IT, U.S. Postal Service, Washington

■ **JOHN OURAM**, senior vice president of IS and corporate adjudication services, CIO, Blue Cross and Blue Shield of Minnesota, Eagan

■ **ROGER W. PARKS**, 53, vice president of IT, CIO, J.R. Simplot Co., Boise, Idaho

■ **BILL PICTON**, 57, MIS director, Thermo Inc., San Lorenzo, Calif.

■ **HOWARD PIGEE JR.**, 50, director of IT, CIO, Life Sciences division, Corning Inc., Acton, Mass.

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Leader's Almanac

What Was Your First Job in IT?

Continued from page 42

signer for custom hardware and integrated a card reader, cash dispenser, paper cutter and drop box.
■ JOEL PLAUT, ASSISTANT VICE PRESIDENT, AMERICAN INTERNATIONAL GROUP INC., NEW YORK

I STARTED WORKING in IT when it was called data processing. I was 19 years old and worked second shift as a computer operator running an IBM System 3 Model 8 computer. We used cards back then, and there were two keypunch operators.
■ NORMAN A. THOMAS, SENIOR VICE PRESIDENT, CHIEF TECHNOLOGY OFFICER, U.S. XPRESS ENTERPRISES INC., CHATTANOOGA, TENN.

I WAS ANALYST and project manager for revenue optimization and reservation systems at Continental Computer Service, a hosted computer services provider for more than 30 airlines worldwide. We designed and implemented a large data warehouse based on VSAM technology and Information Builders Inc.'s Focus report tool for statistical analysis. We took nightly updates from a TPF airline reservation system, converted the data from hex into another format, and held 12 months' rolling history for every flight, both pre- and postdeparture.
■ ALAN BOEHME, EXECUTIVE VICE PRESIDENT, CIO, BEST SOFTWARE INC., ATLANTA

I WAS TAUGHT THE business of investment banking and went through intensive technology training at Morgan Stanley. A

Continued on page 45

Roberta Ambur

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AGE: 48

TITLE: CIO

EMPLOYER: University of South Dakota, Vermillion

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TITLE: Enterprise systems director

EMPLOYER: Office of Naval Intelligence, Washington

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CONTINUED ON PAGE 46

Leader's Almanac

What Was Your First Job in IT?

Continued from page 44

group of us built an automated trader using APL, an artificial intelligence language. It became the No. 1 income producer in the firm.

■ DAVID R. GUZMAN, SENIOR VICE PRESIDENT, CIO, OWENS & MINOR INC., GLEN ALLEN, VA.

I WAS AN ASSEMBLER LANGUAGE programmer at one of the now-failed savings-and-loan companies. I was responsible for the programs that ran all the savings/checking nightly processing systems for the daily transactions. This consisted of two programs, each containing more than 12,000 lines of assembler code. Job-control language streams and finalized programs were delivered via punch cards to the computer room. Testing was limited to one per day due to the number of removable disks that needed to be mounted for these programs, which required 16 of the 25 available disk drives and severely limited the capabilities of the other developers.

■ JAMES D. GIBSON, DIRECTOR OF IT, TRI-WEST HEALTHCARE ALLIANCE, PHOENIX

I WAS A DATA CENTER MANAGER, leading a group of 400 employees. I led areas including policy operations, accounting, customer service and call center functions. After this assignment, my career transitioned to several key roles on the business side. This knowledge was invaluable to me when I returned to the engineering side of IT, as it gave me insight on how our applications needed to be structured in order to give our customers the extraordinary service they expect.

■ CATHY GRUNE, SENIOR VICE PRESIDENT, CHIEF TECHNOLOGY OFFICER, ALLSTATE INSURANCE CO., NORTHBROOK, ILL.

Continued on page 46

Leader's Almanac

What Was Your First Job in IT?

Continued from page 45

I WAS A SOFTWARE customer engineer for IBM. I supported IBM mainframe operating system and system software, and I was a specialist in SNA communications software (CICS, VTAM, Network Control Program and TSO).
■ **RICHARD K. JONES, MANAGING DIRECTOR, CIO, COUNTRYWIDE HOME LOANS INC., CALABASAS, CALIF.**

MY FIRST JOB IN IT was at Midwest Power Systems Inc. I was a member of the team that designed, developed and implemented the management information system in the early 1990s. The main objective was to revamp the company's management reports by providing tools for center managers, and a complete view of costs for each unit and project, minimizing costs by using direct charging when possible, and providing the ability to analyze business unit profitability at the lowest level, thus having more people involved in managing the company.
■ **ROBERTA AMDUR, CIO, UNIVERSITY OF SOUTH DAKOTA, VERMILLION**

I WAS A DEVELOPER for Allied Signal and was responsible for co-developing the Navy's air traffic control program. We converted it from assembler to C. We delivered on time, on budget, and most important, the software has never been associated with any air incident.
■ **SCOTT L. CARCILLO, CIO, VICE PRESIDENT OF IT AND SERVICES, ORSEK INC., LAUREL, MD.**

Continued on page 47

Fred Kimball

He led a transformation that gave decision-making power to every IT worker. By Julia King

IMAGINE TRYING TO QUICKLY turn around an aircraft carrier under full power. That should give you some idea of what Freightliner LLC CIO Fred Kimball was up against in setting out to overhaul the Portland, Ore.-based truck manufacturer's 385-person IT department — in 90 days.

"The structure we had was 25 years old, and we had no defined processes of how to get things done. Everything was carried around in everyone's head," says Kimball. "People came in from outside and pretty much did their own thing. Project management was a major problem for us."

He decided to involve virtually every IT worker in the department's metamorphosis. Kimball laid out 25 transition teams, but rather than assigning people to teams that covered everything from application development to project management, he says he encouraged workers to "sign up for their passion."

Kimball, a Boy Scout troop leader in his spare time, also did something that at first glance may seem out of character for a member of a group whose motto is "Be prepared." He laid out only about 80% of the concepts on which the new IT organization was to be built.

"Clearly, the change was so dramatic that I needed to get buy-in, and this gave [the staff] the opportunity to be involved in making decisions on a day-to-day basis," he explains. "It also was an enabling process to find out who could help us reinvent ourselves and who was opposed to the reinvention process."

The move was "pure Fred," according to Chi-Chao Chen, Freightliner's director of infrastructure development and support and a colleague who has worked with Kimball for the better part of 20 years. "Even though he is a computer science graduate, he doesn't believe computers are everything. He believes in people and trusts his team," Chen says. "He says that one plus one doesn't equal two, but that when people work together, it's a multiplication of their potential.

AGE: 40

TITLE: CIO

EMPLOYER: Freightliner LLC, Portland, Ore.

"He's a visionary," Chen adds. "Rather than worry about day-to-day operations, he trusts his managers and keeps his eye on the big picture."

And, incidentally, the 80% strategy was something Kimball learned in the Boy Scouts, which he says is oriented toward adults never doing something for a boy that he can do for himself.

"You let boys cook their own food, burn it, wash their own dishes, put them away greasy and soapy and eat off them again and get sick," he says. "But they learn by doing." It's the same in business, Kimball says, adding, "People don't want to be micromanaged and told exactly what to do." ◗

■ **JOEL PLAUT,** 38, assistant vice president, American International Group Inc., New York

■ **FREDRICK R. POND,** 45, director of information services, Schnitzer Group, Portland, Ore.

■ **JOSEPH A. PUGLISI,** 47, group CIO, Emcor Group Inc., Norwalk, Conn.

■ **FRANK M. RICHARDS,** 48, CIO, Geisinger Health System, Danville, Pa.

■ **RICHARD RICKS,** 43, group president, Computer Sciences Corp., El Segundo, Calif. (previously senior vice president and CIO at Nortel Networks Ltd., Research Triangle Park, N.C.)

■ **JOEL ROSENBERG,** 41, CIO, Coast Capital Savings, Surrey, British Columbia

■ **LINDA ROUBINEK,** 34, systems officer, Nationwide Mutual Insurance Co., Columbus, Ohio

■ **LINDA SANFORD,** 49, senior vice president, enterprise on demand transformation, IBM Storage Systems Group, Armonk, N.Y.

■ **WILLIAM L. SCHMITT,** 54, director of e-business, Celanese Chemicals Ltd., Dallas

■ **GREG SCHUEMAN,** 34, vice president, chief technology officer, Mercury Insurance Group, Brea, Calif.

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Suchindran S. Chatterjee

Anticipating the industry's future, he led an early migration to Microsoft. By Linda Rosencrance

IN THE EARLY 1990s, when Suchindran S. Chatterjee was vice president of information systems at Mutual of Omaha Insurance Co., the IT world was largely controlled by IBM.

But Chatterjee had the foresight to anticipate Microsoft Corp.'s future dominance in the industry. His next step was to persuade executives at the insurance company to move to a standardized platform and, ultimately, sign an 8,000-user license with Microsoft. That was no easy task, says Chatterjee, now chairman and CIO at Cum Laude Academy of Learning in Scottsdale, Ariz.

"It was an uphill battle all the way, but people call me now to say what I did was visionary and the right thing to do," he says.

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AGE: 51

TITLES: Chairman and CIO

EMPLOYER: Cum Laude Academy of Learning, Scottsdale, Ariz. (formerly CIO at Salt River Pima-Maricopa Indian Community)

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Because of his leadership, the IS department was able to introduce process changes to restore accountability and efficiency to all of the community's departments, Thomas says. ◗

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- **BILL THOMAS,** 51, senior vice president, Provident Financial Corp., Oakland, Calif.
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- **CURTIS L. WOLFE,** 60, CIO, State of North Dakota Information Technology Department, Bismarck
- **STEVE YATKO,** 33, chief technology officer, global application development, Credit Susse First Boston Corp., New York

Leader's Almanac

What Was Your First Job in IT?

Continued from page 46

I WAS WORKING HERE at Geisinger as a clinical chemist. I was hired by MIS to help install a $2 million clinical laboratory system — because I understood lab operations, and I had some computer experience. I had a small operations and data-entry staff, which were totally new areas for me. Coming from a science background, I had a different idea about what computers were all about. To me, they were process-control or number-crunching machines, not the equivalent of large file cabinets. The implementation was a success, and the system was in use for about 15 years.

■ **FRANK M. RICHARDS, CIO, GEISINGER HEALTH SYSTEM, DANVILLE, PA.**

I WAS A COMPUTER OPERATOR for a transportation services company in Seattle in 1978. The computer took up a large room yet had only a small fraction of the power and capacities of today's PCs. Still, we were able to run two companies on it: the main company and a food distribution company. To exchange data with the food distribution company a couple of miles away, we used "key to tape" machines and very slow (300 bit/sec.!) modems. This was an incredible introduction to IT, because a computer operator had to know what the program was doing on the computer when mounting tapes and disks or suffer huge consequences, such as irrecoverable data loss. In less than a year, I was promoted to my first management job, which was computer operations manager.

■ **STEVE McDOWELL, IS DIRECTOR, HOLIDAY RETIREMENT CORP., SALEM, ORE.**

Compiled and edited by Jean Constvio, assistant management editor.

Fred Kimball

He led a transformation that gave decision-making power to every IT worker. By Julia King

IMAGINE TRYING TO QUICKLY turn around an aircraft carrier under full power. That should give you some idea of what Freightliner LLC CIO Fred Kimball was up against in setting out to overhaul the Portland, Ore.-based truck manufacturer's 385-person IT department — in 90 days.

"The structure we had was 25 years old, and we had no defined processes of how to get things done. Everything was carried around in everyone's head," says Kimball. "People came in from outside and pretty much did their own thing. Project management was a major problem for us."

He decided to involve virtually every IT worker in the department's metamorphosis. Kimball laid out 25 transition teams, but rather than assigning people to teams that covered everything from application development to project management, he says he encouraged workers to "sign up for their passion."

Kimball, a Boy Scout troop leader in his spare time, also did something that at first glance may seem out of character for a member of a group whose motto is "Be prepared." He laid out only about 80% of the concepts on which the new IT organization was to be built.

"Clearly, the change was so dramatic that I needed to get buy-in, and this gave [the staff] the opportunity to be involved in making decisions on a day-to-day basis," he explains. "It also was an enabling process to find out who could help us reinvent ourselves and who was opposed to the reinvention process."

The move was "pure Fred," according to Chi-Chao Chen, Freightliner's director of infrastructure development and support and a colleague who has worked with Kimball for the better part of 20 years. "Even though he is a computer science graduate, he doesn't believe computers are everything. He believes in people and trusts his team," Chen says. "He says that one plus one doesn't equal two, but that when people work together, it's a multiplication of their potential.

"He's a visionary," Chen adds. "Rather than worry about day-to-day operations, he trusts his managers and keeps his eye on the big picture."

And, incidentally, the 80% strategy was something Kimball learned in the Boy Scouts, which he says is oriented toward adults never doing something for a boy that he can do for himself.

"You let boys cook their own food, burn it, wash their own dishes, put them away greasy and soapy and eat off them again and get sick," he says. "But they learn by doing." It's the same in business, Kimball says, adding, "People don't want to be micromanaged and told exactly what to do." ◗

■ **JOEL PLANT**, 38, assistant vice president, American International Group Inc., New York

■ **FREDRICK R. POND**, 45, director of information services, Schnitzer Group, Portland, Ore.

■ **JOSEPH A. PUGLISI**, 47, group CIO, Emcor Group Inc., Norwalk, Conn.

■ **FRANK M. RICHARDS**, 48, CIO, Geisinger Health System, Danville, Pa.

■ **RICHARD RICKS**, 43, group president, Computer Sciences Corp., El Segundo, Calif. (previously senior vice president and CIO at Nortel Networks Ltd., Research Triangle Park, N.C.)

■ **JOEL ROSENBERG**, 41, CIO, Coast Capital Savings, Surrey, British Columbia

■ **LINDA ROUBINEK**, 34, systems officer, Nationwide Mutual Insurance Co., Columbus, Ohio

■ **LINDA SANFORD**, 49, senior vice president, enterprise on demand transformation, IBM Storage Systems Group, Armonk, N.Y.

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Send Resume to: HR Dept., U.R. International, Inc., 12790 South Kirkwood, Stafford, TX 77477 or via email at: jobs@urinternational.com

Director IT Infrastructure

Western New York based manufacturing company seeking top quality candidate who could grow to CTO position. Requires BS, MBA preferred. ERP major application implementation, strong manufacturing systems. Experience building fault tolerant environments, Internet technologies and a demonstrated background in developing successful architecture and technologies. Proven strengths in system development methodologies and ability to present complex technical solutions to senior management. Exceptional compensations, benefit package. Respond to Personnel Resource, Inc. via email prnorth@perresource.com

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VegaStream Inc. located in Boca Raton is seeking F/T expd Manager of Product Support to research, design, and developing of computer software systems, in conjunction with hardware product development. Analyze software requirements to determine feasibility of design within time and cost constraints. Consult with hardware engineers and other engineering staff to evaluate interface between hardware and software, and operational and performance requirements of overall system. Formulate and design software system, using scientific analysis and mathematical models to predict and measure outcome and consequences of design. Bachelor's degree in Computer Science, competitive salary. Fax resume to David Gellen (561) 995-6027

Programmer/Analyst to: Plan, develop, code & test complex programs for biz. systems custom & to meet info. req'mts to non-profit engineer-based member society; develop client/server applic. to meet biz. req'mts; consult w/ clients to determ. progm need, objective, & input/output req'mt, analyze & define req'mts for data, workflow, logical process, system interfaces, hardware & OS environmt., develop plans re steps, and & timetable for developing progms; create autom. report & manage d-base maintain.; assist in test of developed applic. code; monitor performance of progms post-implement; write documentation re progm development, logic, coding, test, & correction; support & maintain applic.; identify software techn. gaps, eval software & hardware option to assist in programming or use as platform; assist in development of progm standard; conduct perform. design, & tuning; analyze & alter progms to increase efficiency. Interact w/ product mngr. to analyze customer x-action data from book & product sales, subscription, trade show exhib., training & event registration & membership aspects of non-profit society to facilitate strategic biz. decision. Meet with user groups, system engineer & outside consultants re computer system, train end users & technic. staff on applics; provide tech. assistance to program users. Duties involve: Relational D-base develop (SQL based) IMS, OMNIS, Oracle, Windows NT, Great Plains eEnterprise, MS SQL/Server, Visual Basics, MS Office Suite, Crystal Reports & Mail Verify Req'mts. Bachelor degree in Computer Science or Information Systems or related field. PLUS 2 yrs. exper. in job offered or 2 yrs. exper. in financial biz. applic. systems development & d-base maintain. Comput. Salary & a.m.-6 p.m., M-F. Location: RTP, NC. Send resume to Molly Rodgers, HR Director, Attn: DOL-SD-1, ISA, 67 Alexander Drive, PO Box 12277, Research Triangle Park, NC 27709.

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SENIOR SOFTWARE ENGINEER: Full range to programming responsibilities of Clockwork32-Time and Billing application as well as Client Profile Financial Management System used in law firm practice case management. Requirements: Bachelor's degree in Computer Science and proven knowledge and 3 years of experience in accounting in a time and billing environment, financial system writing, Progress 7 & 8 Server DBA, Microsoft SQL Server 2000 DBA, Implement performance tuning, develop and maintain database schema and Multi Database application development. Must have the following Skills: Progress 4GL versions 7 & 8, Progress User Interface Builder version 8, SQL Programming, COM component programming, Crystal Reports 8 & 9 development tools, XML. Send resume to Jose Fernandez, HR Mgr., Client Profiles, 1215 Hightower Trail, Building A - Suite 200, Atlanta, Georgia 30350

SOFTWARE ENGINEER: Boston-based Internet company has an immediate need for a Software Engineer responsible for developing, maintaining and documenting applications and programs for the Linux operating system using high-level programming languages such as C, C++ or Java and scripting languages such as Perl. Responsible for all development phases and coordination with other team members and associate departments.

A bachelor's of computer science or related degree, and knowledge of Java and scripting languages such as Perl required. We offer a competitive salary, excellent benefits, and a great work environment.

Please forward your resume and cover letter to: Keelyn Collins, Xmoon, Inc., 401 Park Drive, 3 West, Boston, MA 02215

Software Engineer: Harrisburg, PA. Responsible for process analysis, reengineering, architecture and development of IT solutions for complex business systems. Use tools like Java, C, C++, Visual Basic, Sybase SQL Server, Rational Rose, ERWIN, and legacy systems (IBM/NCR/Unisys). Configure TCP/IP LAN/WAN environments and Windows/UNIX systems. Job involves active involvement in business planning/delivery and coordination with sales. Requires BS or equivalent in Comp. Sci or Electronics Engineering and 4 years of relevant experience. Exp must include use of at least four mentioned tools and involvement in business systems planning, presentation and delivery. Competitive salary. Mail resume to HR, Shreem LLC, 2121 Queens Drive, #B-2, Harrisburg, PA 17110. Fax: 866-269-9273. Ref: TRK4390

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The Pepsi Bottling Group is seeking a Senior Analyst for Somers, NY. Candidate will develop applications and reports for sales compensation applications in a SYBASE 11 9.2 environment, using Power Builder 6.5 and Novell Netware. Please fax resumes to J. Abena Aggrey at (914) 767-1082. No phone calls please.

SOFTWARE ENG Dvlp & maintain catalogs & models; analyze configuration & architecture of Cognos products. Provider user support. BS Computer Sci, Info Systems or equiv + 2 yrs exp in job or Programmer/Analyst reqd. Two+ yrs exp w/ Cognos Impromptu or PowerPlay plus exp w/ database/SQL & developing analysis & design docs reqd. Competitive Salary. Send resume to: C. James, John H. Harland Co, 2939 Miller Rd, Decatur, GA 30035.

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Forward resume to Mark V. Ferranti, Human Resources Manager, Carrier Corporation, Carrier Parkway, Bldg. A&R, Mail Stop 46, Syracuse, NY 13221 or fax to 315-432-3834. No phone calls please.

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Ideal candidates for IT Business Development Director positions will have technical background, i.e., Bachelor's degree in Engineering, Computer Science, Electronics or related field, and IT business development/management experience.

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System Administrator to manage the comp info. system; develop data comm & networking of co. branches/HQ: coord. strategic planning; tech. support; Need Master's Degree in Comp. Info Systems, 40 hr wk. 8am - 5 pm, $42,640/yr. Send resumes to MDCD/ESA, P.O. Box 11170, Detroit, MI 48202, Reference No. 202650. Employer Paid Ad.

DATA WAREHOUSE PROGRAMMER - Rockville, MD. Develop and maintain load programs, metadata, user forms and reports in Oracle 8 Silas; develop, test, implement and maintain code on UNIX and Oracle SQL/PL*SQL. Document and communicate changes to users and assist in the development of overall architecture and system planning. Bachelor's Degree in Engineering or Information Systems & 2 yrs exp. in job offered or related field. Exp. which may have been gained concurrently, must include 2 yrs operating in Oracle. Send resumes to rockvilleresume@mamsi.com and reference code #6103.

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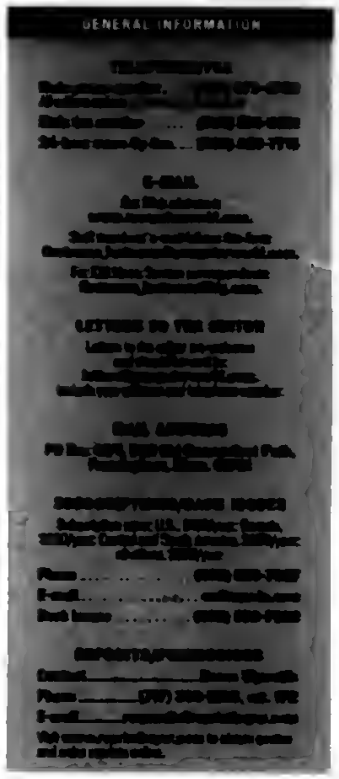

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Kohl's Corp. 7
Kroger Co. 7
L-3 Communications Holdings Inc. 7
Lam Research Corp. 7
Lear Corp. 7
Lehman Brothers Holdings Inc. 7
Lennar Corp. 7
Level 3 Communications Inc. 7
Lexmark International Inc. 7
Limited Brands Inc. 7
Lincoln National Corp. 7
Linear Technology Corp. 7
Liz Claiborne Inc. 7
Lockheed Martin Corp. 7
Loews Corp. 7
Longs Drug Stores Corp. 7
Louisiana-Pacific Corp. 7
Lowe's Companies Inc. 7
LSI Logic Corp. 7
Lucent Technologies Inc. 7
Manor Care Inc. 7
Marathon Oil Corp. 7
Marriott International Inc. 7
Marsh & McLennan Companies Inc. 7
Masco Corp. 7
Mattel Inc. 7
Maxim Integrated Products Inc. 7
May Department Stores Co. 7
Maytag Corp. 7
McDonald's Corp. 7
McGraw-Hill Companies Inc. 7
McKesson Corp. 7
Medtronic Inc. 7
Merck & Co. Inc. 7
Meredith Corp. 7
Merrill Lynch & Co. Inc. 7
MetLife Inc. 7
MGM Mirage 7
Micron Technology Inc. 7
Microsoft Corp. 7
Molex Inc. 7
Monsanto Co. 7
Morgan Stanley 7
Motorola Inc. 7
Mylan Laboratories Inc. 7
National Semiconductor Corp. 7
Navistar International Corp. 7
NCR Corp. 7
Network Appliance Inc. 7
New York Life Insurance Co. 7
New York Times Co. 7
Newell Rubbermaid Inc. 7
Newmont Mining Corp. 7
Nike Inc. 7
NiSource Inc. 7
Noble Corp. 7
Nordstrom Inc. 7
Norfolk Southern Corp. 7
Northrop Grumman Corp. 7
Novell Inc. 7
Novellus Systems Inc. 7
Nucor Corp. 7
Nvidia Corp. 7
Occidental Petroleum Corp. 7
Office Depot Inc. 7
Omnicom Group Inc. 7
Oracle Corp. 7
PACCAR Inc. 7
Pactiv Corp. 7
Pall Corp. 7
Parker Hannifin Corp. 7
Paychex Inc. 7
Peoples Energy Corp. 7
PeopleSoft Inc. 7
PepsiAmericas Inc. 7
PepsiCo Inc. 7
PerkinElmer Inc. 7
Pfizer Inc. 7
PG&E Corp. 7
Pharmacia Corp. 7
Phelps Dodge Corp. 7
Phillips-Van Heusen Corp. 7
Pinnacle West Capital Corp. 7
Pitney Bowes Inc. 7
Plum Creek Timber Co. Inc. 7
PNC Financial Services Group Inc. 7
Polaroid Corp. 7
Potlatch Corp. 7
PPG Industries Inc. 7
PPL Corp. 7
Praxair Inc. 7
Procter & Gamble Co. 7
Progress Energy Inc. 7
Progressive Corp. 7
Providian Financial Corp. 7
Prudential Financial Inc. 7
Public Service Enterprise Group Inc. 7
Pulte Homes Inc. 7
Qualcomm Inc. 7
Quantum Corp. 7
Quest Diagnostics Inc. 7
Qwest Communications International Inc. 7
R.R. Donnelley & Sons Co. 7
Radioshack Corp. 7
Raytheon Co. 7
Reebok International Ltd. 7
Regions Financial Corp. 7
Reynolds American Inc. 7
Rockwell Automation Inc. 7
Rockwell Collins Inc. 7
Rohm & Haas Co. 7
Ryder System Inc. 7
Safeco Corp. 7
Safeway Inc. 7
Sanmina-SCI Corp. 7
Sara Lee Corp. 7
SBC Communications Inc. 7
Schering-Plough Corp. 7
Schlumberger Ltd. 7
Scientific-Atlanta Inc. 7
Sealed Air Corp. 7
Sears Roebuck & Co. 7
Sempra Energy 7
Sherwin-Williams Co. 7
Siebel Systems Inc. 7
Sigma-Aldrich Corp. 7
Silicon Graphics Inc. 7
Simon Property Group Inc. 7
Solectron Corp. 7
Southern Co. 7
Southwest Airlines Co. 7
Sprint Corp. 7
Sprint PCS Group 7
St. Jude Medical Inc. 7
St. Paul Companies Inc. 7
Stanley Works 7
Staples Inc. 7
Starbucks Corp. 7
Starwood Hotels & Resorts Worldwide Inc. 7
State Street Corp. 7
Stryker Corp. 7
Sun Microsystems Inc. 7
Sunoco Inc. 7
SunTrust Banks Inc. 7
Supervalu Inc. 7
Symantec Corp. 7
Symbol Technologies Inc. 7
Synovus Financial Corp. 7
Sysco Corp. 7
T. Rowe Price Group Inc. 7
Target Corp. 7
Tektronix Inc. 7
Tellabs Inc. 7
Temple-Inland Inc. 7
Tenet Healthcare Corp. 7
Teradyne Inc. 7
Texas Instruments Inc. 7
Textron Inc. 7
The Gillette Co. 7
The Goodyear Tire & Rubber Co. 7
The Home Depot Inc. 7
The Interpublic Group of Companies Inc. 7
The Kroger Co. 7
The Limited Inc. 7
The Mosaic Co. 7
The New York Times Co. 7
The Procter & Gamble Co. 7
The Sherwin-Williams Co. 7
The Stanley Works 7
The Walt Disney Co. 7
Thermo Electron Corp. 7
Tiffany & Co. 7
Time Warner Inc. 7
TJX Companies Inc. 7
Torchmark Corp. 7
Toys "R" Us Inc. 7
Transocean Inc. 7
Tribune Co. 7
TRW Inc. 7
Tupperware Corp. 7
Tyco International Ltd. 7
Tyson Foods Inc. 7
Unilever NV 7
Union Pacific Corp. 7
Unisys Corp. 7
United Parcel Service Inc. 7
United States Steel Corp. 7
United Technologies Corp. 7
UnitedHealth Group Inc. 7
Univision Communications Inc. 7
Unocal Corp. 7
UnumProvident Corp. 7
US Bancorp 7
UST Inc. 7
V.F. Corp. 7
Veritas Software Corp. 7
Verizon Communications 7
Viacom Inc. 7
Visteon Corp. 7
Vulcan Materials Co. 7
Wachovia Corp. 7
Walgreen Co. 7
Wal-Mart Stores Inc. 7
Walt Disney Co. 7
Washington Mutual Inc. 7
Waste Management Inc. 7
Watson Pharmaceuticals Inc. 7
Wellpoint Health Networks Inc. 7
Wells Fargo & Co. 7
Wendy's International Inc. 7
Weyerhaeuser Co. 7
Whirlpool Corp. 7
Williams Companies Inc. 7
Winn-Dixie Stores Inc. 7
Worthington Industries Inc. 7
Wrigley (Wm.) Jr. Co. 7
Wyeth 7
Xcel Energy Inc. 7
Xerox Corp. 7
Xilinx Inc. 7
XL Capital Ltd. 7
Yahoo Inc. 7
Yum! Brands Inc. 7
Zimmer Holdings Inc. 7
Zions Bancorporation 7

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Leader's Almanac

On the Cutting Edge

What technologies are the Premier 100 kids testing now?

0) Enterprise application integration
2) Wireless
3) Voice over IP
4) Security
5) Storage
6) Linux
7) Web services
8) Data management
9) Middleware
10) Network management

Are they investing in open-source technology?

47 SAID NO. Of those, 25 don't plan to invest in open source in the next one to two years; 20 said they do plan to invest in open-source technology in the next one to two years. (Two expressed no preference.)

41 SAID YES, they are investing in open-source technology. The three most-cited technologies they are using are: 1. Linux; 2. Apache; 3. Perl

What technology holds out the most promise?

1 Wireless
2 Web services
3 XML
4 Voice over IP
5 Vertical industry technologies
6 Linux
7 [illegible]
8 Handheld computing
9 Customer relationship management
10 EAI

Who has overhyped and underdelivered?

0 [illegible]
1 CRM
2 Web services
3 Java
4 EAI
5 XML
6 ERP
7 Linux
8 J2EE
9 PKI

FRANK HAYES ▪ FRANKLY SPEAKING

2003 on a Shoestring

LET'S START WITH WHAT EVERY IT LEADER knows already: There's no money. There *is* no money. There is *no* money. There's not going to *be* money anytime soon. You don't know when there will be money. You can't make any plans that depend on there being money, because for the foreseeable future, the one thing you know is, there's no money.

And as far as money goes — forget about it.

This year, IT leadership isn't about achieving great things by marshaling all the resources at your disposal. It's about getting the job done, even without the resources you need.

But how do you keep a sense of powerlessness or paralysis from creeping in, when there's no budget to do things that need doing? And how do you keep morale up and keep moving ahead — all on the cheap?

First, **don't sugarcoat your situation.** You know there's no money. Keep repeating that to your staff, your users and your CEO. Don't complain; just be matter-of-fact about it — again and again and again. If nothing else, it'll help keep expectations low, so every success will look like a real achievement.

Brainstorm. No, not in a conference room with some overpriced facilitator. Kick ideas around with your staff in a dimly lit pizza parlor, the way nature intended. Don't take turns — just let the suggestions, objections and corrections flow. Take your own notes on the back of a napkin, and make sure staffers follow up by identifying what they think are the best and most practical ideas. They'll remember the good ones.

Take a walk in Userville. Touch base with some actual, hands-on-the-keyboard users. It's your cheapest and most accurate reality check. If they're really unhappy with your systems, they'll tell you about it. If you can come up with a solution, everybody's happier. If not, they're no worse off. Either way, you'll get cheap insight into what matters most to them.

If it's dead, kill it. You've already spiked your least-likely-to-succeed projects, right? Now go after the rest of them ruthlessly. If you can't see success, kill it. If you can't kill it, freeze it. And if you can't freeze it, figure out how to make it a success. Remember, the most costly projects are the ones that never deliver a return on your investment because they never go live.

Refactor - don't nickel-and-dime. You can trim a little fat out of any project easily once, maybe twice. The third or fourth time, it's a lot harder. Forget the nickel-and-dime approach. Try cutting big. Slice off bells and whistles, features and even some functions. Then offer users the option of a simpler, more reliable version delivered sooner — a go-cart instead of the Ferrari they asked for. They may go for it, and you'll cut development costs. Sure, they'll still want the Ferrari next year. But that'll be in next year's budget.

Watch out for overreactions — your own and anyone else's. Everyone's tired and stressed from tight budgets, shrunken staff and overgrown workloads. Tempers are frayed. Minor problems or disagreements can blow out of proportion. Step in. Find a resolution. Stupid blowups tend to get expensive fast.

Take care of your staff. Relax any rules you can that will make things easier for them without raising risks. Praise individuals in front of other executives and managers; word will get around. Defend them if a complaint is unreasonable or unfair. Look out for their interests.

Finally, follow through. The risk of trying cheap new ideas is that some won't work, others won't be worth the trouble, and all require more attention than business as usual does. You'll have to stay on top of everything you try if you want to get real value on the cheap.

But, of course, you knew that already. ▸

Enterprise application integration
Wireless
Voice over IP
Security
Storage
Linux
Web services
Data management
Middleware
Network management

47

41

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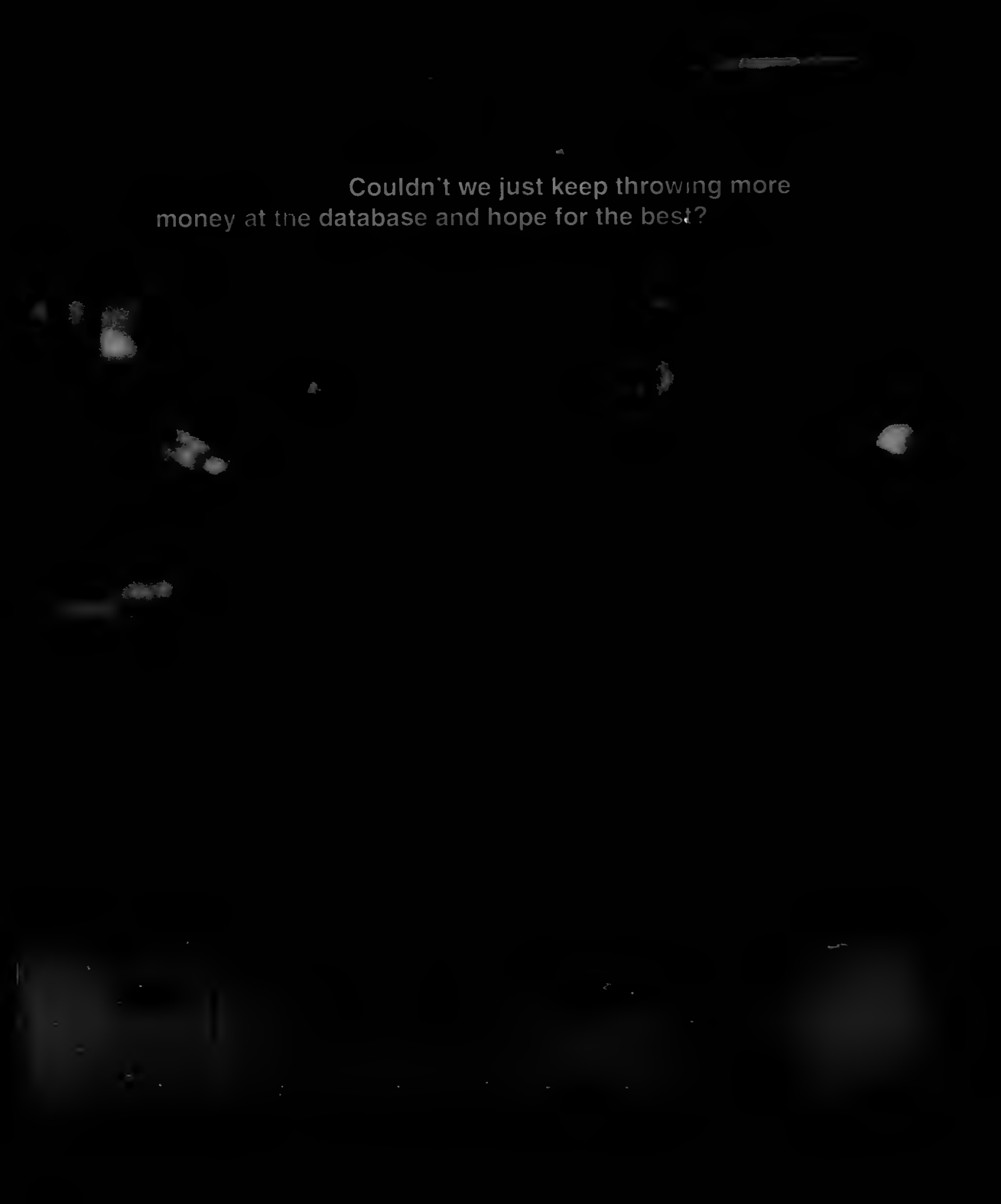
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